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STATE AND LOCAL ISSUES AND MUNICIPAL NETWORKS

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED NINTH CONGRESS

SECOND SESSION

FEBRUARY 14, 2006

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ONE HUNDRED NINTH CONGRESS

SECOND SESSION

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STATE AND LOCAL ISSUES AND MUNICIPAL NETWORKS

TUESDAY, FEBRUARY 14, 2006

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 2:32 p.m. in room SH–216, Hart Senate Office Building, Hon. Ted Stevens, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. TED STEVENS, U.S. SENATOR FROM ALASKA

The CHAIRMAN. Let me apologize for the Senate's schedule. I know it disrupted you, and many of you have come in from long distances, and sorry we were not able to hold the hearing this morning, and I thank you for coming here at this time in the afternoon. We've got two hearings going on in our Committee at the same time, so I'm afraid that some of us who might otherwise be here are in the other one. It concerns timber and is particularly of concern to the border states in the north. Senator Inouye has been called away and will not be able to be with us.

Today's hearings will address two issues, Federal, state and local regulatory roles and municipal broadband. As a result, in today's network digital world, regional and national services increasingly transcend state and local boundaries. As a result, service providers can face a patchwork quilt of differing regulations that drive up regulatory costs, bifurcate business practices and impact consumer costs. When I was at your conference yesterday and spoke with a lot of good people, the idea of creating a joint board to work out common national status between states and the FCC on key issues that leave it to the states to enforce the standards at the local level was discussed.

The joint board approach is not likely to work as well when you get down to the local level because there are simply too many municipalities. But once you get beyond pure rights-of-way management, it's very difficult to try to achieve consensus as a joint board involving 50,000 different municipalities as opposed to 50 states. In my view, solutions to consumer complaint issues must be implemented at the state and local level to the maximum extent possible. They are more equipped to handle the complaint from, and as I was just saying, an Eskimo in my state than the FCC. We want to hear about municipal broadband today. The Augustine Report that I mentioned, *Rising Above the Gathering Storm,* made

clear the need for broadband to ensure our country's competitive position in the digital age.

Concerned that broadband is not happening quickly enough, some municipalities want to build and operate their own broadband networks while others want to sponsor them. Some commercial providers have cried foul and are concerned that they cannot compete fairly against municipalities. And there are states that have prohibited municipalities from offering telecommunication service and are pondering prohibiting broadband service.

We will hear today from all of you to help determine what role municipalities should play and how we should interact with them, and we want to hear about the Universal Service Fund and what impact it has on the commercial sector also. I'll be pleased to have your testimony. I don't know if we're going to have additional Senators. I may be all you've got, but we'll see. Oh, there's one down there.

Senator LAUTENBERG. I'm here.

The CHAIRMAN. Didn't see him.

Senator LAUTENBERG. That's because you and I are the same age.

The CHAIRMAN. It's generational. We keep commitments.

Senator LAUTENBERG. That's true.

The CHAIRMAN. Senator Lautenberg.

STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM NEW JERSEY

Senator LAUTENBERG. Thanks, Mr. Chairman, for calling this hearing. I think there's so much confusion about the vote schedules and so forth that it's hard to assemble a quorum of any size. I guess we constitute a quorum technically. We both disagree with one another, but on this we may be OK.

I want to thank you for calling the hearing. Senator McCain and I have a bill on the issue of municipal broadband, and we think it's a critical issue, and I want to explain why. Broadband is a 21st century utility, one that improves communications, education, the economy. President Bush has called for a universal and affordable broadband for every American by 2007. And that's a commendable goal, one that will bridge the digital divide and improve economic opportunities for all citizens. Unfortunately, we're still far from achieving it. Studies rank the United States anywhere from 12th to 16th worldwide in the percentage of residents with broadband connections. And to me, that sounds like we're falling behind in the Internet age. Mr. Chairman, you know that I come out of the computer industry. Unfortunately, it's such a long time ago that I'm not sure it looks the same even since then.

The CHAIRMAN. I thought you went back, but you came back again.

Senator LAUTENBERG. Back, well, I had to have a place to work, Mr. Chairman. But it's incredible to me that the advances in technology are so vast and so essential in the world in which we live that the United States has fallen behind in the use of some of the later advanced technology. This isn't nanotechnology. We're talking about something much simpler. So many Americans don't have broadband because they live in smaller towns where companies

won't make it available, or they simply can't afford broadband service.

Communities across the country have responded by stepping in to create their own municipal networks. But instead of embracing these efforts, 14 states have passed laws restricting or prohibiting these networks. Now, Senator McCain and I introduced the Community Broadband Act to protect the right of local communities to make broadband available to all of its citizens. And our bill will protect the rights of towns like Scottsburg, Indiana, where businesses threatened to leave because broadband wasn't available. When private providers declined to help, the town created its own wireless network, and they saved jobs in the process. There are also urban areas where many residents simply can't afford high-speed connections. In Philadelphia, 95 percent of the residents in affluent areas have broadband, but in low-income neighborhoods only 25 percent of the residents have broadband service, and it's wrong.

In the digital age, equal opportunities in jobs and education require equal access to the Internet, and that's why Philadelphia stepped in to help its citizens and secure its economic future. And two of our witnesses today are involved in the Philadelphia project. We look forward to hearing from them. Thankfully, I think the tide is shifting on the issue. Indeed, even Verizon, which worked aggressively against Philadelphia on its project, has re-examined its position and no longer opposes municipal networks and doesn't oppose the Community Broadband Act.

And I appreciate this change of heart, and I would add that many of the municipal networks can be public-private partnerships. Mr. Chairman, municipal networks expand economic opportunities. They also provide an important tool for public safety as we saw in the wake of Hurricane Katrina when volunteers set up a wireless network that enabled communications in the New Orleans area during the disaster and had to do it on their own.

So, Mr. Chairman, I congratulate you for doing this and getting onto this subject. It's very important. And as we work to reach the goal of universal broadband, we've got to open new doors and not slam them shut. So, I thank you very much, Mr. Chairman, once again.

The CHAIRMAN. Well, thank you very much, Senator. Let me tell you all that we'll place in the record in full any statements that you have, but we hope that you will summarize them. I'm not going to run a clock on you, but we do hope that you can keep them short, and we'll get to some questions, and hopefully, there'll be other Senators that arrive during the hearing. Mr. Sahr, we'll start with you as the Chairman of the South Dakota Public Utility Commission of Pierre, South Dakota.

STATEMENT OF ROBERT K. SAHR, CHAIRMAN, SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

Mr. SAHR. Good afternoon. Mr. Chairman and Senator, I appreciate the opportunity to come here today and talk to you about these two important issues. I should note that as well as being Chairman of the South Dakota Public Utilities Commission, I am also Chairman of the 14-state Qwest Regional Oversight Tele-

communications Committee, and my opinions here today, though, are of my own and as an individual commissioner. I applaud the Committee's leadership on the issues of municipal broadband and the role of Federal, state and local government in the digital world. The United States is at a critical juncture in terms of how we fund our telecommunication networks and how we ensure every American has access to state-of-the-art telecommunications including broadband.

Today's policy decisions will have far-reaching effects on our Nation's economy and on the health, education and public safety of our citizens. Broadband and telecommunications services are the great equalizers that can bring amazing opportunities to all Americans, whether they live in metropolitan areas or on a farm or a ranch on the prairie in my home state of South Dakota.

To compete in the global marketplace, the United States must have a robust telecommunications infrastructure, and this requires Federal, state and local policies that encourage investment in our telecommunications networks. Municipal governments as well as other policymakers have legitimate interests in ensuring constituents have access to broadband networks. I applaud municipal leaders for looking to innovative market-enhancing ways to have broadband delivered to their towns and cities, especially those who have no broadband whatsoever.

I myself, have worked closely with local leaders on this very topic in my home state. However, before pursuing a municipal-owned or sponsored network, we should first look to private solutions. Our Nation's telecommunications providers have made substantial investments in their systems. These efforts are paying off. FCC figures show that high-speed Internet connections increased 34 percent in 2004. Technology on the horizon will allow delivery of more and richer broadband to more and more consumers. And you can look to my home state of South Dakota, where more than 200 communities have access to broadband, and many of these are in the most rural parts of the state. We also have very aggressive competition in our larger markets, and a recent check of bundled prices in the Rapid City market showed that consumers are paying $72.95 for bundled service. So, there are definitely benefits of competition that we're seeing as well.

Balancing the legitimate and municipal interests with a strong preference for free market solutions, we can develop a framework that encourages the most efficient and effective use of both public and private resources and that provides consumers access to state-of-the-art services.

My written comments provide some possible frameworks that I will summarize. First, municipalities should only act where market failure exists. Second, where the failure exists, communities should ascertain whether or not providers are willing to serve the market immediately or in the near term. Third, municipalities should consider available funding sources and possible incentives to attract private investment. Fourth, municipalities should consider public-private partnerships, and I appreciate the Senator's remarks on that. Fifth, municipalities, after assessing the appropriate risks and benefits, may consider constructing and operating a municipal-owned or sponsored network.

Under this last scenario, the municipality should continue to evaluate opportunities for non-governmental solutions. This is the methodology we recently employed in South Dakota to help the city of Timber Lake, South Dakota, successfully apply for a USDA Broadband Community Connect Grant that will bring a wireless broadband network to the city. I thank Congress and President Bush's support of this and other similar programs.

I would urge the Committee to guard against government ownership that usurps, prohibits or discourages private investment. Removing potential markets and customers from a private provider's pool can greatly hamper the provider's ability to build and maintain networks because of the loss of customer base. One of the most egregious cases is currently pending before the Federal Communications Commission and involves the Massachusetts Port Authority's attempt to create a monopoly on WiFi services at Boston's Logan International Airport. While this may be an extreme case, ill-conceived governmental networks can have a chilling effect on private investment and stifle competition and its consumer benefits.

I've been asked to briefly comment on the roles of Federal, state and local governments in the digital world. Clearly, certain issues must be decided at the Federal level. And in some areas, national uniformity makes sense such as with truth-in-billing. I'm concerned that unreasonable actions in other states can raise prices for my state's consumers or maybe waste resources that should be going into new infrastructure. On the other hand, state and local governments have active roles in areas like consumer protection and dispute resolution.

In response to consumers' requests for better wireless services in South Dakota, I launched a statewide wireless initiative in 2002. This plan teamed state officials, with local leaders to encourage wireless providers to invest in our state. The wireless providers responded by putting record investment into our state and bringing state-of-the-art digital services to many underserved rural communities for the first time.

As my written comments detail, the Federal/state framework helped make this possible and demonstrates that beyond traditional state regulation, there can be a proactive state role of facilitation and perhaps even innovation. Thank you for the opportunity to testify. I'd be pleased to answer any questions at the appropriate time.

[The prepared statement of Mr. Sahr follows:]

PREPARED STATEMENT OF ROBERT K. SAHR, CHAIRMAN, SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

Good morning Mr. Chairman and Members of the Committee. My name is Bob Sahr and I am the Chairman of the South Dakota Public Utilities Commission. My comments today are those of an individual Commissioner. I thank you for the opportunity to testify before you.

I applaud the Committee's leadership on the issues of municipal broadband and the role of Federal, state and local government in the digital world. The United States is at a critical juncture in terms of how we fund our telecommunications networks and how we ensure every American has access to state-of-the-art telecommunications, including broadband. Today's policy decisions will have far-reaching effects on our Nation's economy and on the health, education and public safety of our citizens. Broadband and telecommunications services are the great equalizers

that can bring amazing opportunities to all Americans, whether they live in metropolitan areas or on a farm or ranch on the prairie in my home state of South Dakota.

Broadband and telecommunications services also give our international competitors similar opportunities. The stakes are high and the time to act is now; recent statistics showed the United States dropping from 13th to 16th place in terms of broadband penetration. To compete in the global marketplace, the United States must have a robust telecommunications infrastructure, and this requires Federal, state and local policies that encourage investment in our telecommunications networks.

I have been asked to make remarks on the following topics:

I. Whether municipal or municipal-sponsored broadband networks should be restricted and what the impact on competition might be; and

II. The appropriate role of Federal, state and local government in the digital world and why.

I. Municipal Broadband Networks

A. Introduction

Municipal governments, as well as other policy-makers, have legitimate interests in ensuring constituents have access to broadband networks. Without broadband, a community's ability to attract and maintain business, to offer critical public services and to provide opportunities to its residents is severely hampered. I applaud municipal leaders for looking for innovative, market-enhancing ways to have broadband delivered to their towns and cities. I have worked closely with local leaders on this very topic in my home state.

However, before pursuing a municipal-owned or sponsored network, we should first look to private solutions. Our Nation's telecommunications providers have made substantial investments in their systems, and technology on the horizon will allow them to deliver more and richer broadband to more consumers. We must be particularly mindful of municipal action that displaces or discourages private investment.

Balancing the legitimate municipal interests with a strong preference for free market solutions, we can develop a framework that encourages the most efficient and effective use of both private and public resources and delivers state-of-the-art services to all consumers at affordable prices.

B. Preference for Private Solutions

Nationwide, our telecommunications providers are making enormous investments in their networks and in the research and development of innovative products and services. This is happening across the country in rural and urban areas alike and with both wireline and wireless technologies.

According to recent Federal Communications Commission (FCC) statistics, the annual household expenditures in 2003 were $441 for local exchange carriers, $122 for long distance carriers and $492 for wireless providers. In 2002, wireline carriers spent $34.8 billion and wireless carriers spent $20.5 billion on structures and equipment. In 2004, our Nation invested nearly $5.7 billion in telecommunications infrastructure through universal service funding including almost $3.5 billion for high-cost support. We all have an interest in seeing these investments fully utilized.

This substantial investment is paying off and delivering broadband to more and more consumers. FCC figures show that high-speed connections to the Internet increased 34 percent in 2004.

In my home State of South Dakota, a rural state with less than 10 residents per square mile, we have amazing telecommunications success stories made possible by the investment, foresight and innovation of our state's providers. More than 200 communities, many of them very small, have broadband access. The overwhelming majority of these communities are served by cooperatives, tribally-owned entities and family-owned companies that, during the past five years, have invested $300 million in capital improvements alone. Our larger cities have brisk competition with two or more providers, including incumbent phone and cable companies plus overbuilders, offering services. This has resulted in lower prices—bundled voice, video and broadband services can currently be purchased for $72.95 per month in the Rapid City market—as well as innovation. Over two years, our largest wireless companies have invested well over $150 million in their systems and are in the process of building one of the best rural wireless networks in the Nation. Finally, a number of small, entrepreneurial ventures are offering wireless broadband, not just in our cities but also in some of the most rural parts of the state. These providers are not just content to serve their current customers but are constantly looking for ways to

enter new markets and offer new services. The entrepreneurial spirit is alive and well in South Dakota and our consumers reap its benefits.

If our country wants to encourage investment in private networks; if our providers are to have access to the necessary capital to adequately invest in their systems; and if our consumers are going to see the benefits of investment, innovation and competition, including lower prices and advanced services; then we must ensure government ownership meets appropriate criteria and does not waste or usurp private investment.

C. Legitimacy of Local Government Interests in Broadband

Without a doubt, every local government has a legitimate interest in seeing its residents and businesses have access to state-of-the-art telecommunications including broadband.

I am incredibly sympathetic to communities that lack broadband and have met with people from such communities within my own state and listened to their concerns. Their ability to educate their children, keep their communities safe and compete in the global economy is severely hampered. Every opportunity, including municipal ownership or sponsorship, must be evaluated. My fellow commissioner, Dustin Johnson, and I have pledged our assistance to look for ways to bring broadband to these communities. And, in some of these instances, public ownership or public-private partnerships may be the only option. However, on the policy front, we must ensure that opportunities for private investment are given full consideration and that municipal entry is a last resort.

I would differentiate these communities that lack any broadband options from communities in which municipalities or municipally-sponsored entities enter markets where broadband is already available. Without some type of market failure, municipal entry, in my opinion, is highly suspect.

D. Possible Frameworks for Municipal Entry

1. Guiding Principles

How do we balance the legitimate municipal interest in broadband with a preference for private investment? Here are some guiding principles that can help answer this question.

First, municipalities should act only where a market failure exists.

Second, where market failure exists, communities should ascertain whether or not providers are willing to serve the market immediately or in the near term. One of the best possible sources for a broadband solution may be a provider that already has networks in close proximity to the underserved area. This step should also include the consideration of whether or not technological improvements or lower investment costs may yield a broadband solution in the immediate future.

Third, municipalities should consider available funding sources and possible incentives to attract private investment. These could include Federal assistance through broadband loans and grants, a variety of state and local tools to encourage investment, and even marketing the area as a test market for providers or equipment manufacturers.

Fourth, after pursuing the first three options, municipalities should consider public-private partnerships. This has the benefit of bringing private experience to the venture and helps the community share some of the risk of the project versus pursuing a solely-owned network. Additionally, the municipality may have expertise, facilities or other advantages that may make an otherwise unviable network attractive to private investment.

Fifth, municipalities, after assessing the appropriate risks and benefits, may consider constructing and operating a municipal-owned or sponsored network. In these situations, the municipality should continue to evaluate opportunities for non-governmental solutions.

2. Examples of the Right Approaches

A recent example of how these steps can work comes from Timber Lake, South Dakota. Timber Lake, a city of 443 residents, lacks broadband. Local leaders contacted our office for assistance. We worked with the community to formulate a plan. First, we met with the providers currently serving the city and those with facilities near the city. While all providers expressed interest in providing broadband, they uniformly stated the probable customer base would not justify the capital expenditures necessary to provide high-speed Internet. The City of Timber Lake then applied for a United States Department of Agricultural Broadband Community Connect Grant. Last fall, USDA selected Timber Lake for a $393,309 grant to construct a wireless broadband network and other improvements. It will be built and maintained by a private provider with assistance from the City.

Although, as mentioned previously, my home state of South Dakota has many broadband success stories, we do have cities and towns lacking broadband. I want to thank you, the other Members of Congress and President Bush for supporting programs such as the USDA Broadband Community Connect Grant program. Where market failures exist and private investment alone cannot bridge the digital divide, this type of program can bring broadband to communities for the first time and make a huge difference in people's lives.

I would offer for the Committee's consideration two other methodologies for evaluating the appropriateness of municipal ownership or sponsorship of broadband networks.

One, in August 2005, the South Dakota Association of Telephone Cooperatives endorsed a proposal urging the prohibition of municipalities from delivering wireless or other types of high speed Internet unless:

1) There is no similar service being offered in said municipality,

2) The municipality can show that no private communications provider is planning to offer wireless or other types of high speed Internet service in the foreseeable future,

3) The municipality can show that the service would be economically feasible without a subsidy of public funds, and

4) The municipality can demonstrate public support by means of a public vote or some other show of public support.

Two, the State of Florida enacted a law in 2005 governing municipal entry into telecommunications services. Under that law, a governmental entity proposing to provide communications service must make available to the public a written business plan for the venture and must hold no less than two public hearings, not less than 30 days apart, in which the following shall be considered:

- Whether the service is currently provided in the community and whether it is generally available throughout the community.
- Whether a similar service is currently being offered in the community and is generally available throughout the community.
- If the service is not being offered, whether any other provider proposes to offer the same or similar service and what, if any, assurances that service provider has offered that it is willing and able to provide the same service.
- The capital investment required by the government entity to provide the communications service, the estimated operation and maintenance costs, the estimated realistic revenues and expenses of providing the service, and the proposed method of financing.
- Private and public costs and benefits of providing the service by a private entity or a governmental entity, including economic development impacts, tax-base growth, education, and public health.

E. Inappropriate Government Action

In the worst cases, government ownership usurps, prohibits or discourages private investment. One of the most egregious cases is currently pending before the Federal Communications Commission and involves the Massachusetts Port Authority's attempt to create a monopoly on WiFi services at Boston's Logan International Airport.

Seeking to create a monopoly in itself for the provision of wireless broadband at Logan Airport, Massport seeks to restrict the deployment and use of *unlicensed* wireless services by third parties (like Continental Airlines, which wants to provide free wireless to its customers). Massport seeks to require airlines or any other tenant of Logan Airport to use a central antenna installed by Massport. A third-party vendor selected by Massport would, in turn, exclusively maintain this central antenna. The airlines, airline employees, airport patrons and customers, and service providers would be denied any right to utilize the provider of their choice—including ones willing to provide free service. So, instead of promoting a competitive marketplace for wireless services, Massport would grant a monopoly to a sole service provider of its choice and would, directly or through delegation to the monopoly service provider, set the price for wireless services at Boston's Logan Airport. Massport's actions, if permitted, would severely undermine the promotion of competitive wireless markets and the promotion of the deployment of advanced broadband capabilities for all Americans.

While this may be an extreme case, municipal networks can generally have a chilling effect on private investment and stifle competition and its consumer benefits. Whether in a major metropolitan area or a small town in rural America or

somewhere in between, municipal broadband removes markets and customers from a private provider's pool. This can greatly hamper a provider's ability to build and maintain state-of-the-art networks across a region or across the country because of the loss of potential customer base. So not only are consumers in the municipally-served market injured because they do not receive the benefits of competition, but also consumers outside that market suffer harm because their provider has lost the ability to spread costs over a larger customer base.

F. Questions Raised by Municipal Ownership

Municipally-owned or sponsored networks raise a whole host of questions, especially in areas where private companies exist or are willing to serve:

- Will municipal networks assume ill-advised technological or business risks?
- Do municipal networks have advantages unavailable to competitors in building networks such as access to streets, rights-of-way and government property?
- Will municipal networks cover risks by using tools available to them because of their non-profit or governmental status such as bonding or taxing authority?
- Will a municipality cross-subsidize its telecommunications network?
- Do municipal networks pay the same taxes and fees, including municipal ones, as competitors?
- What happens if a municipal system wants to extend its service beyond municipal boundaries, an opportunity that is relatively easy with wireless networks?

Finally, municipally-owned or sponsored networks can create regulatory asymmetry. At a time when we are evaluating the Federal/state/local relationships and looking for a level regulatory playing field regardless of technology, municipally-run systems raise additional questions on the regulatory front. In particular, when do state and Federal rules govern another governmental entity and its telecommunications ventures?

In summary, we can balance the legitimate municipal interests in assuring access to broadband networks with a preference for private solutions. The aforementioned guidelines should serve as suggestions for developing appropriate criteria for municipal entry. This strategy will encourage private investment in our Nation's telecommunications infrastructure, foster competition and bring more advanced services to consumers at lower prices.

II. Federal, State and Local Government Roles

A. Federal Roles

I have been asked to briefly address the appropriate role of Federal, state and local government in the digital world.

While I consider myself a strong state's rights advocate, there are some areas where national uniformity is appropriate. A good example is the current Federal Communications Commission's Truth-in-Billing docket. The docket brings consistency to the regulation of providers, requires that all carriers provide accurate billing information, clarifies what constitutes misleading charges and eliminates varying treatment of certain charges across state lines. These principles protect consumers and ensure that inconsistent state regulations do not adversely impact competition and the corresponding consumer benefits. Under these types of circumstances, consumers are best served by uniform national standards.

The FCC has tentatively concluded that there is support for preemption of state regulations related to billing. I respectfully suggest that in certain areas, like truth-in-billing, a national regulatory framework that clearly provides for Federal oversight is necessary for a continued competitive wireless market.

Undoubtedly, both the states and the Federal Government share an interest in ensuring that consumers are not defrauded. A uniform approach on issues like billing practices, however, would best serve to protect consumers' rights. A national framework of Federal rules would: provide greater uniformity to wireless bills; eliminate confusion with respect to consumers' rights by providing clear national standards that are applied similarly in every state; increase consumer choice by eliminating excessive state regulation which, together with the associated costs; and promote competition among wireless carriers.

B. State and Local Government Roles

On the other hand, I would urge the Committee not to jump to the conclusion that Federal preemption should be the rule across-the-board for all issues. State and local governments are well-suited to address a number of important issues.

1. Consumer Protection

Clearly, state public utilities commissions and attorneys general have essential consumer protection roles. My experience is that, in the vast majority of circumstances, consumers would much rather pursue their claims closer to home and that commissions and attorneys general alike show great ability to resolve disputes in a cost-effective, timely manner.

2. Dispute Resolution

An interesting side effect of moving toward a competitive telecommunications marketplace has been the growing need for state and Federal policy-makers to resolve disputes among competing carriers. While the days of monopoly regulation and telephone rate-making are gone in most states, complex commercial disputes before state commissions has taken its place. A state commission might find itself busier in a "deregulated" or "competitive" world than it was in the "regulated" world. Unless major changes are made to the size and breadth of the FCC or unless the decision is made to turn a long line of disputes over to courts, state commissions will continue to play a vital role refereeing the telecommunications providers.

3. Market Monitoring

More complex are the boundaries for state and local government in areas like market evaluation, competition and franchising. State commissions and local governments bring a great appreciation and understanding of how local markets work. While occasionally needing limits on unfettered discretion and while respecting that certain issues should be decided on the Federal level, state and local governments have a keen ability to monitor marketplaces and to sometimes develop better solutions to complex problems than can be formulated through one-size-fits-all Federal dictates.

4. Roles for Innovative State Policies

Beyond these principles lies a great opportunity for states and local governments to be innovators, often in conjunction with telecommunications providers. While I have heard numerous critiques of state and local policy-makers, many of them ill-placed but some on point, one that probably has merit but is rarely mentioned is our failure to seek out and encourage innovative solutions.

While I firmly believe that limited government is best and that private industry should take the lead in most circumstances, it would be a mistake to preclude state and local initiatives. My state's former Governor, William Janklow, had the vision to wire every school in the state for broadband and to build a state radio network that allows every first responder to communicate on the same system using the same equipment. Although I am sure you are more concerned with regulation of telecommunications providers, these are prime examples of state roles that serve consumers and the public well.

In response to consumer input asking for improved wireless service in the rural parts of my state, I formulated the South Dakota Wireless Initiative in 2002. Instead of erecting barriers to entry, we looked for ways to encourage wireless companies to invest in the state. We worked with local leaders to help them make their cases for better service, emphasized the importance of reasonable zoning and looked for local resources to speed the delivery of services. Governor Michael Rounds and our commission notified the providers that South Dakota wanted their investment and would look for ways to facilitate rural networks. Our office met with the providers and worked with them to evaluate options. We furnished them with traffic counts, demographics, local knowledge and information about existing towers and structures that could serve as possible sites.

The wireless providers responded by putting record investment into our state. Cellular One/Western Wireless, which is now Alltel, and Verizon Wireless built approximately 40 towers in South Dakota in 2004. Many of these sites brought state-of-the-art digital services to underserved rural communities for the first time. The wireless buildout continued in 2005, and 2006 looks to be a great year for our state's consumers. While state government had a role, the providers themselves ultimately deserve the credit as they decided to invest their resources in South Dakota.

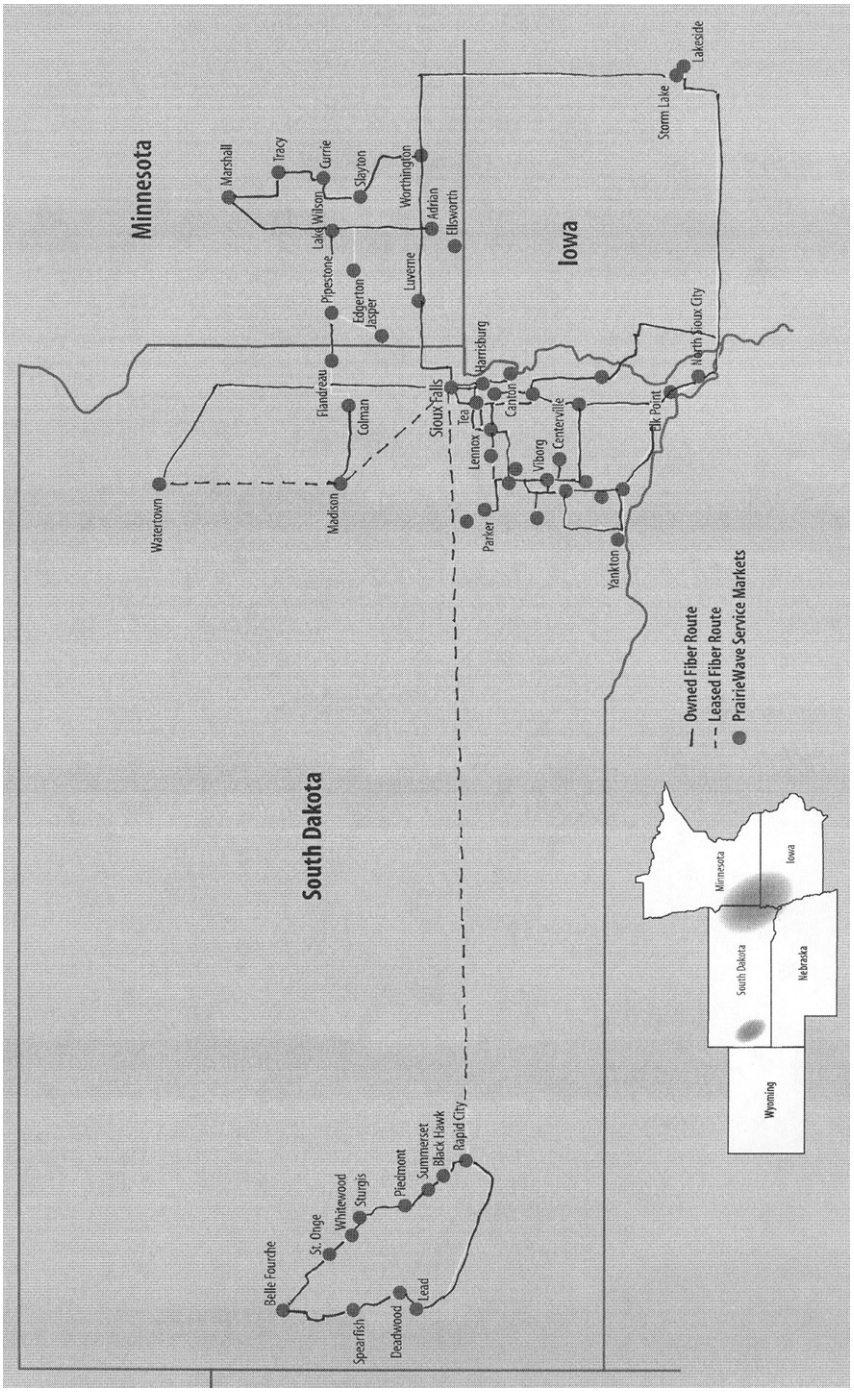
This ongoing success story was made possible, at least in part, by the current regulatory framework. As you probably know, Federal telecommunications law preempts states from regulating wireless pricing and market entry. This approach undoubtedly has led to the tremendous investment in wireless networks and the industry's rapid growth, and, in the case of our state, gave the providers access to the capital necessary to build the towers. At the same time, if state and local government had no role whatsoever, then we may not have been as successful in encouraging the wireless providers to invest in our state and communities. In the case of

Alltel, a company receiving universal service funds for the South Dakota market, Federal policy decisions that made USF available to wireless providers and that delegated states compliance oversight together created a framework where: (1.) a provider has sufficient capital to invest in rural networks and (2.) state government is responsible to ensure service is provided throughout the service territory. The South Dakota wireless success story demonstrates that beyond traditional state "regulation" there can be a proactive state role of "facilitation" and perhaps even "innovation."

III. Conclusion

In closing, I would respectfully urge you to do everything in your power to encourage investment in the Nation's telecommunications infrastructure and, as a part of this, to develop a framework that balances legitimate municipal interests in broadband with a preference for private solutions. Finally, as you grapple with these and many other important telecommunications matters, please keep in your mind the challenges faced in constructing and supporting rural telecommunications networks. If South Dakota and other rural states fall behind a digital divide, the entire country will suffer.

Thank you for inviting me here today. I appreciate the opportunity to testify before you.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Rapid City
Spearfish
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Lead
Owned Fiber Route
Leased Fiber Route
PrairieWave Service Markets
Minnesota
Iowa
South Dakota
Nebraska
Wyoming

The CHAIRMAN. Thank you very much, Mr. Sahr. Our next witness is Diane Munns, Commissioner of the Iowa Utilities Board, President of National Association of Regulatory Utility Commissioners of Des Moines. I remember my friend from South Gunner says Des Moines.

STATEMENT OF DIANE MUNNS, COMMISSIONER, IOWA UTILITIES BOARD; PRESIDENT, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS (NARUC)

Ms. MUNNS. You say it any way you want. Thank you, Chairman Stevens and Senator. I am Diane Munns. I'm a Commissioner with the Iowa Utilities Board and currently President of the National Association of Regulatory Utility Commissioners or NARUC. NARUC represents state utility commissioners in all 50 states in U.S. territories with oversight over telecommunications, energy, water and other utilities.

We commend you for convening this series of hearings on a communications policy reform, and we particularly appreciate your setting aside time to hear from representatives from state and local governments. Today's telecom market faces enormous challenges including rampant arbitrage and restructuring that is sapping state and Federal Universal Service programs, the need to modernize the E–911 emergency calling system, fresh new challenges in consumer privacy and consumer protection and finding the proper mix of incentives to spur investment in the networks and innovation among users. Compounding the task is the sheer size and diversity of our Nation. I think we have some small understanding of the unique challenges in Alaska and Hawaii, but did you know that Iowa has over 150 incumbent carriers who are providing service in rural areas with a unique network design?

Knowing that Congress was considering sweeping changes, NARUC convened its own legislative task force in November of 2004 to examine our role and our view of the future of federalism in telecommunications. NARUC came up with two important guiding principles. The first is that any overhaul of the Telecommunications Act should be as technology neutral as possible. This is a lesson learned. Who could have envisioned the explosion of technology or the impact of the Internet? Many of our current problems stem from different treatment of different platforms or networks that are now capable of delivering the same or similar services.

The second important principle is that in considering state and Federal roles, the past rule on endpoint jurisdiction, whether a particular service is intrastate or interstate in nature, is not relevant in today's environment. Rather, Federal policymakers should look at the core competencies of state, Federal and local level and ask who does what best. The analysis should first start to look and see if regulation is needed and then which level of government is best suited to handling the tasks.

I'd like to talk briefly about several areas where we believe the states are positioned to be very effective in a Federal/state partnership. The first is consumer protection. NARUC does not object to Federal consumer protection standards. This is an important point to begin with in framing the discussion. We believe in this industry there is a need for a Federal framework and Federal rules. What

we object to is an approach that makes those standards a ceiling on state action and fails to give those who help consumers the tools, authority and flexibility they need to get the job done.

We object to gutting our Nation's consumer protection standards or creating an enforcement black hole. We believe the need for uniformity to incent businesses and cut transaction costs must be balanced with the ability to respond to consumer and competition issues. And we believe that there are creative mechanisms and processes that are capable of dealing with this tension. A recent survey found that in just 20 state commissions, over 230,000 consumer complaints had been handled in 2004. These complaints are generally resolved on a one-for-one basis, and the majority take only a few weeks through informal processes.

We are concerned however, that legislation already introduced before this Committee would take a one-size-fits-all approach when it comes to consumer protection standards without providing flexibility to the state agencies that enforce them. We believe we should look to the lesson learned after the passage of the 1996 Act with respect to slamming and cramming. States first addressed this abuse, and after experimentation, a Federal approach was adopted, but enforcement is a joint responsibility between the states and the FCC. This has proven to be a very effective model in handling this abuse. It was not a question of Federal or state jurisdiction, but a partnership fashion to address an abuse specific to this industry.

Unfortunately, the same dynamism that brings exciting new products and services to consumers also produces a host of new complaints and novel misunderstandings, especially for products supplanting additional phone service. Another lesson learned should be from the National Do-Not-Call list which was enacted 3 years ago with great fanfare. Federal enforcement of the do-not-call list has been less than aggressive, especially when compared to the track records of states.

For example, look to North Dakota, a state of only 640,000 people. Yet, in the first two and a half years of its strict state do-not-call list, the state attorney general has enforced 53 settlements totaling $64,000 and issued seven cease and desist orders just in this state alone.

The entire Federal Government, despite receiving over one million complaints, has only issued six fines and filed 14 lawsuits. States are better positioned to provide remedies and enforcements and are likely to do so in a manner that fits the locale and situation. NARUC would like to accept the challenge given to us by Chairman Stevens in his speech yesterday and work for approaches like joint boards that protect consumers while minimizing red tape. We think this is most effectively done by leveraging Federal and state capabilities. With respect to Universal Service, NARUC supports efforts to more equitably distribute the funding base of the Federal Universal Service Fund in a more technology neutral manner. Today, Universal Service is a joint responsibility between the states and the Federal Government with 26 state programs distributing about $1.3 billion or nearly 20 percent of the overall national commitment to Universal Service.

This joint approach benefits both net donor and net recipient states because it lessens the burden on an already sizable program

and permits another option when Federal disbursement formulas that work in the aggregate do not adequately serve a particular state or community.

Our concern is that any expansion of the Federal base without a complementary clarification of coextensive state authority could create tremendous funding gaps that would fall disproportionately on consumers who rely on state programs and would raise thorny issues about the equity of Federal disbursement formulas. We ask for your consideration of the existing state funds in any changes that you consider.

Interconnection: In a networked industry, fierce competitors will always have to cooperate to operate a seamless network of networks, but there are frequent incentives to frustrate interconnection. We are concerned that at least one bill before this Committee would move the function of mediating, arbitrating and enforcing interconnection agreements from the states to the Federal level. This is another issue of poor competency or charging government at the level with the best ability to deliver value. States that have the ability to decide fact specific disputes based on a record, they are able to make these decisions in an expedited manner to support commercial transactions.

Finally, the states have the knowledge of networks and local conditions that sometimes are the cause of these disputes. The ability to interconnect seamlessly into the traditional phone system is the linchpin of success for competition in the availability of new services.

Quickly, we also support a requirement for VoIP providers to provide E–911 functionality and believe states are the logical point for enforcement of this requirement. Seven years ago, I argued the landmark case of *AT&T* v. *Iowa Utilities Board* before the U.S. Supreme Court, a case that some scholars have called the beginning of the end for the old models of federalism. My hope with Congress in looking at rewriting the Telecommunications Act is to use what we've learned to maintain and strengthen a Federal/state partnership that has worked so well in recent years to build a set of policies to leverage the strengths of each for the benefit of both industry and consumers. In that endeavor, we offer ourselves as partners. Thank you.

[The prepared statement of Ms. Munns follows:]

PREPARED STATEMENT OF DIANE MUNNS, COMMISSIONER, IOWA UTILITIES BOARD; PRESIDENT, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS (NARUC)

Chairman Stevens, Co-Chairman Inouye and Members of the Committee, thank you for the opportunity to testify today. I am Diane Munns, Commissioner with the Iowa Utilities Board and President of the National Association of Regulatory Utility Commissioners (NARUC). NARUC represents State utility commissioners in all 50 States and U.S. territories, with oversight over telecommunications, energy, water and other utilities. State commissioners are generally either appointed by our governors, as I was, or stand for election, as you do. As leaders in our state, each of us is ultimately accountable to the voters, and we share your commitment to promoting the opportunity for every community to take part in the revolution of broadband convergence, new technologies and intense competition—all to the benefit of the consumer.

We commend you for convening this series of hearings on communications policy reform and we particularly appreciate your setting aside time to hear from "beyond the beltway" colleagues in State and local governments. Today's telecom market

faces enormous challenges, including rampant arbitrage and restructuring that is sapping State and Federal universal service programs, the need to modernize the E–911 emergency calling system, fresh new challenges to consumer privacy and the proper mix of incentives to spur investment in the networks and innovation among the users.

Compounding your task as Federal legislators is the sheer size and diversity of our Nation. Every state is unique. In Alaska, replacing a single broken part to restore service in Point Hope might require an 800 mile emergency flight from Anchorage. Hawaii, on the other hand, is thousands of miles from the mainland and the main incumbent phone company was recently sold to a Washington, D.C. private equity firm. My own state of Iowa is served by 150 separate incumbent phone companies while other states have vast rural areas served by a single national company. All these factors have impact on how you go about protecting consumers, encouraging competition and preserving universal service—and doing it all from the banks of the Potomac (surrounded by advocates) is, to put it mildly, a challenge.

The good news is that while major legislation can take a long time to enact at the Federal level, states are also exercising leadership. In fact, for all the derision heaped on the Telecommunications Act of 1996, the current framework has allowed us to respond to a number of the challenging issues that are the subject of other hearings before this Committee:

- States commissions and legislatures are examining the competitiveness of every market and paring back economic regulation where we find effective competition;
- State commissions, legislatures and localities have vigorously encouraged broadband deployment, through economic deregulation bills, municipal projects and "E-Government" initiatives where town halls, schools and libraries have acted as the "early adopters" to bring broadband to their communities.
- States are meeting nearly 20 percent of the national commitment to universal service through their own programs in 26 states;
- NARUC's Intercarrier Compensation Task Force has become the primary forum over the last two years for all the major carriers to dialogue with each other and consumer advocates in search of a "negotiated" way to rationalize the system of payments;
- States and localities are granting video franchises to competitive providers, including Bell companies, overbuilders and the rural telcos;
- States were the first to require VoIP providers to provide 911/E–911 functionality, a move resisted by the industry but later followed by Federal regulators.

The beauty of all this is that instead of relying on white papers and promises, Federal policymakers need only look around the Nation for real-life examples of what "works" and what doesn't in various policy areas. On issue after issue there is a well-worn path of good ideas like the do-not-call list, slamming and cramming rules and various approaches to universal service happening first at the State level and then at the Federal level.

Just as valuable, state initiatives that haven't worked serve as priceless "red flags" to state and national leaders as they wrestle with new challenges. To borrow from another sector, what if the electric industry had nationalized the California experiment in electric deregulation in its zeal to avoid a "patchwork" and the entire Nation had been subject to rolling blackouts? Instead, the California experience has been studied endlessly and regulators in Washington, D.C. and every state capital have been able to draw their conclusions.

With all that in mind, if I could offer one word of advice, it would be to retain the State-Federal partnership in communications policy. Look to your state commissioners as partners and honest brokers as you undertake major revisions to the Act, and do your state a good turn by keeping the partnership model in place for the next generation.

Knowing that Congress was considering sweeping changes, NARUC convened our own Legislative Task Force in November 2004 to examine our own role and our view of the future of federalism and telecommunications. After internal polling, extensive discussions and consultation with consumers and industry stakeholders, NARUC came to two important conclusions:

The first is that any overhaul of the Telecom Act should be as technology neutral as possible. When you talk to the luminaries of industry and academia, the first thing you learn is that even they don't know where today's wave of innovation and restructuring will lead or end. Will wireless broadband and broadband over power lines finally bring an explosion of competition to the "last mile," or will the ever-

present incentive to merge and consolidate in networked industries steer us into a concentrated market? That question has not been answered with any finality yet.

With that in mind, we thought it was best to take policymakers and regulators out of the business of betting on one technology or another—even if all the talking heads are praising it as a the "wave of the future." The last thing we want to do is create another wave of arbitrage and market distortion, and if even Bill Gates doesn't know what will happen next, how are we supposed to?

The second important conclusion was that in considering State vs. Federal rules, Congress need not yoke itself to old rules about whether a particular service is "interstate" or "intrastate" in nature. Rather, Federal policymakers need only look to the core competencies of agencies at the State, Federal and local level and ask "who does what best"? And that's the process we began on a number of issues. Our goal in each case was to go back to first principles, look at why regulations are there in the first place, and then decide which level of government is best suited to handling the task.

Consumer Protection

A recent survey found that in just 20 State commissions, over 230,000 consumer complaints had been handled in 2004. These complaints are generally resolved on a one-for-one basis and the majority take only a few weeks through informal processes. We are concerned, however, that legislation already introduced before this Committee would take a "one-size-fits-all" approach when it comes to consumer protection standards, without providing flexibility to the state agencies that enforce them. This is unfortunate because the same dynamism that brings exciting new products and services to consumers also produces a host of new complaints and novel misunderstandings, especially for products supplanting traditional phone service.

A particular case in point has been the National Do-Not-Call list, enacted three years ago with great fanfare. Federal enforcement of the do not call law has been less than aggressive, however, especially when compared to the stellar track record of states. For illustrative purposes, consider this: North Dakota is a state of only about 640,000 people. In the first 2½ years of its strict state do-not-call law, the state Attorney General has enforced 53 settlements, totaling over $64,000, and issued 7 cease and desist orders just in his state alone. Meanwhile, the entire Federal Government, despite receiving over one million complaints, has only issued 6 fines and filed 14 lawsuits. Even more importantly from the consumer's viewpoint, telemarketers were quick to exploit a patchwork of loopholes and "workarounds" to the Federal rules and the calls kept coming. It fell to a handful of states to say that "no means no." Without that state enforcement and flexibility, consumers would be in a much worse position. The vast majority of state commissioners believe two lessons can be taken from experiences like these.

1.) State enforcement of consumer protection standards has proven to be far more effective than Federal enforcement. This Nation is too large to expect one or two Federal agencies to respond to all consumer complaints.

2.) States must retain a level of flexibility to tailor consumer protection standards that consumers expect. Weak, one-size-fits-all, loophole ridden Federal standards will invite a consumer backlash unlike anything seen before in this industry. State commissions still report almost universally that telecommunications complaints are the number one reason for constituent complaint calls.

NARUC doesn't object to Federal consumer protection standards, but we do object to an approach that makes those standards a "ceiling" on state action and fails to give those who help consumers the tools, authority and flexibility they need to get the job done. Gutting our Nation's consumer protection standards and creating an enforcement blackhole must not be the outcome of a process that should, rather, be bringing more regulatory parity and investment certainty to the important telecommunications sector.

Universal Service

NARUC supports efforts to more equitably distribute the funding base of the Federal Universal Service Fund (USF) in a technology-neutral manner, although we believe such efforts must be accommodated by similar efforts to ensure the long-term sustainability of state programs. Today, universal service is a jointly shared responsibility between the states and the Federal Government, with 26 state programs distributing about $1.3 billion, or nearly 20 percent of the overall national commitment to universal service. This joint approach benefits both "net donor" and "net recipient" states because it lessens the burden on an already sizable Federal program and

permits another option when Federal disbursement formulas that "work" in the aggregate do not adequately serve a particular state or community.

Our concern is that any expansion of the Federal base without a complementary clarification of co-extensive state authority could create tremendous funding gaps. The impact of those gaps would fall disproportionately on consumers who rely on state programs, and would raise thorny questions about the equity of Federal disbursement formulas.

NARUC also supports a permanent exemption of Federal universal service programs from the Antideficiency Act. We commend you for securing this year's exemption and we look forward to working with you to make it permanent beyond 2006.

Interconnection

In a networked industry, fierce competitors will always have to cooperate to operate a seamless network of networks, but there are frequent perverse incentives for one carrier or another to frustrate interconnection for anti-competitive reasons.

We are concerned that at least one bill before this Committee would federalize the traditional state role of mediating, arbitrating and enforcing those interconnection agreements. Current law already includes a provision for the FCC to arbitrate interconnection agreements when the state commission does not act, but the isolated instances where this has been necessary have not generally gone well. In one case, a cable company in the competitive phone business had to spend 3 years and over $2 million to arbitrate an interconnection dispute at the FCC, even though it was eventually vindicated on every issue. Sending such disputes to Federal courts or another forum would be even more onerous, with discovery rules and a multi-year process for resolving disputes that could be adjudicated in a matter of weeks at a state commission. We are concerned about the ripple effect that a backlog of such cases would have on the entire industry, especially when some traditional phone providers have already sought to *deny* interconnection altogether to new competitors. The ability to interconnect seamlessly into the traditional phone system is the linchpin of success for many VoIP services.

Connectivity Principles

We applaud the Committee for convening last week's hearing on network neutrality. Many broadband providers are under tremendous investor pressure to drive as many customers as possible to their proprietary voice, video and data products. While consumers can benefit from competing networks and compelling proprietary products, we hope the network owners' competitive strategies will turn on price, quality and features—not impairing or degrading competitors' products or imposing artificial bandwidth limits on consumers.

E–911/Public Safety

NARUC supports a requirement for VoIP providers to provide E–911 functionality, and believes states ought to be able to enforce it. However, this is an area where access to facilities and state mediation, arbitration and enforcement of interconnection agreements are particularly important. We should all take the E–911 obligation seriously enough to provide a fast, effective interconnection process like the one found at the state level. In most cases, the incumbent provider has a complete monopoly over the trunk lines to 911 call centers. Without a referee to ensure interconnection, the incumbent becomes the *de facto* referee and can use that role to thwart competitive entry by denying access to a functionality most consumers find to be a basic necessity.

Video Franchising

NARUC is not prepared to make a policy recommendation on this issue, but we are in the midst of an intensive consultation process with consumers, local governments, industry and other stakeholders to gather information. To that end, we recently completed a survey of what some of our states are doing on franchising. Some of them offer statewide franchising, such as Texas, Alaska, Hawaii and Vermont. Others oversee a local process. All share substantial responsibility with localities, especially on issues like right-of-way.

Conclusion

Seven years ago, I argued the landmark case of *AT&T* v. *Iowa Utilities Board* before the U.S. Supreme Court, a case that some scholars have called the beginning of the end for the old models of federalism. Since then I've watched with some amusement as the state commissions and the concept of federalism have gone in and out of style with nearly every industry segment—ILEC, CLEC, cable, wireless, VoIP—you name it. Even the dot.com companies readily avail themselves of state remedies when they want a change to the Uniform Commercial Code, articles of in-

corporation in Delaware or an anti-spam statute like the one they sought in Virginia and other states.

To those with a bottom line, federalism is a doctrine of convenience in many ways, and I don't even fault them for it because they have a fiduciary duty to their investors. My hope with Congress and my plea to you today, however, is to maintain the Federal-State partnership that has worked so well over the years in so many facets of society and the economy, and to take your time to build a set of policies you can be proud of. In that endeavor, we offer ourselves as your partners.

The CHAIRMAN. Thank you very much, Ms. Munns. The next witness is John Perkins, the President of National Association of State Utility Consumer Advocates, also from Des Moines.

STATEMENT OF JOHN R. PERKINS, PRESIDENT, NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES

Mr. PERKINS. Thank you, Chairman Stevens, Senator Lautenberg. My name is John Perkins. I am the consumer advocate for the state of Iowa, and I am also the President currently of the National Association of State Utility Consumer Advocates. Our organization is comprised of state-appointed officials generally appointed by our Governor or our state attorney general, and our statutory responsibilities are to represent consumers in our states before matters over which our public utility commissions have jurisdiction—telephone, gas and electric.

And I'm here today in my position as President of NASUCA to speak to you on this important issue of telecommunications. It's no surprise to members of this committee that the telecommunications industry, even in the last 10 years since Congress last made a major overhaul of our telecommunications laws, has changed drastically. What hasn't changed in that 10-year period is the need for vigorous enforcement of consumer protection laws by both Federal and state agencies.

I understand that within the past several years, members of the telephone industry, and when I say telephone industry, I am including wireless, wireline, voice-over-Internet providers, any of the new methods of telephone communication that have developed, that members of that industry have lobbied both this body and the FCC long and hard to preempt states from enforcing unique consumer protection laws that apply to that industry. Their argument has been that they're national industries, that as national industries, they have to operate in every state, and it's simply too hard and too difficult for them to have to comply with consumer protection acts in 50 different states. They can't possibly do that and make a profit.

The FCC, in the last year, entered a declaratory ruling and likewise set up a further notice of public rulemaking, and the FCC apparently has unfortunately bought into this argument and basically has held that any state consumer protection statute that deals with rates or non-rates of billing issues has been preempted and only the FCC can be the enforcement agency for consumer protection actions in that regard.

The problem with the FCC's position and the problem with enacting any kind of legislation that would put that into effect by Congress is first of all, we contend, that the FCC simply doesn't have authority to do that. Congress has gone as far as it's going to go and has told the FCC what it should do in terms of state pre-

emption, and it doesn't include preempting us from everything involving rate and non-rate involved in the billing. That's Congress's decision to make, and Congress has not yet spoken on that. The second problem is, and Ms. Munn's alluded to it, it's how is the FCC going to enforce this. They're an overworked, understaffed agency as it is. They have thousands and thousands of complaints as it is on cell phones and wirelines. They need the assistance of state attorney general and state public utility commissions. And if the states are preempted in this matter, you've cut out probably 75 to 80 percent of the enforcement personnel available to keep citizens protected in these matters.

The thing that I would ask this Committee to ask the telephone industry during these deliberations is why are you so different than the insurance industries, the securities industry, beer and liquor industries, trucking industries. Name an industry, and most of them are regulated both by the Federal Government and by individual state statutes including consumer protection state statutes that have a unique bend to them to protect the citizens of that state. Those industries have been able to get along just fine. They've been very profitable for the most part, and they haven't had any problem in that regard with a dual Federal/state law enforcement. We've asked this industry why it is that they're so different that they have to be regulated only by the Federal Government and consumer protection laws enforced only by the Federal Government. We've never gotten a satisfactory answer, and I would urge the Members of this Committee, as they look at legislation in this regard, to ask those same questions and satisfy yourself of the reasonableness of their position on that. Thank you.

[The prepared statement of Mr. Perkins follows:]

PREPARED STATEMENT OF JOHN R. PERKINS, PRESIDENT, NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES

Chairman Stevens, Co-Chairman Inouye, thank you for this opportunity to appear before your Committee to discuss the important topic of the sharing of responsibilities between Federal and state agencies responsible for enforcing consumer protection laws in the telecom industry. My name is John R. Perkins. I am the Consumer Advocate for the State of Iowa and am currently serving as the President of the National Association of State Utility Consumer Advocates. NASUCA is an association whose members are, for the most part, the statutorily authorized state officials responsible for representing their citizens in utility matters before their state public utility commissions, as well as before state and Federal courts, Federal agencies and Congress. They operate independently from their state PUCs. NASUCA currently has members from 43 states and the District of Columbia.

No one knows better than the Members of this Committee of the vast changes that have occurred in the telecommunications industry since the enactment of the Telecommunications Act of 1996. Technology that was barely, or not at all foreseeable in 1996—save possibly by a few science fiction writers—is or will soon become a reality in this industry. Cell phones that take pictures, play songs, allow us to view our e-mail, websites and favorite television shows, even navigate for us in unfamiliar cities and telephones using the Internet are all recent and still nascent technologies.

What is not new in this industry is the need for consumer protection laws and the vigorous enforcement of those laws by state and Federal officials to protect the purchasers and users of these devices.

The telecom industry is no different than any other industry in the world. As long as there is a buck to be made by cheating unsuspecting individuals, there are a few unscrupulous operators who will do so. Others simply feel the doctrine of *caveat emptor* is a perfectly acceptable and legitimate creed to follow in doing business and if people don't protect themselves, they have no one to blame but themselves if they

fall prey to someone smarter. Cramming[1] and slamming[2] are two of the most prevalent forms of consumer scams in the telecom industry. While slamming is not so much of a problem with cell phones, certainly cramming continues to be an issue. Furthermore, long and complicated cell phone contracts routinely used by the carriers setting out a consumer's obligation to the cell phone company, usually for several years, are the norm and provide fodder for mischief, intentional and unintentional.

NASUCA has become increasingly concerned with the efforts of the wireless and VoIP industries to persuade the FCC that it should assume total enforcement authority over all business practices of its members and totally preempt states that enact or enforce consumer protection laws applicable to the way those same companies do business in those states. NASUCA is even more concerned with the apparent success those industries have had as evidenced by the FCC's recent unilateral bold assertion it is to be the sole enforcer of consumer protection laws in the telecom industry, to the exclusion of the states. *See, I/M/O Truth-in-Billing and Billing Format: National Association of State Utility Consumer Advocates' Petition for Declaratory Ruling Regarding Truth-in-Billing,* Second Report and Order, Declaratory Ruling, and Second Further Notice of Proposed Rulemaking, CC Docket No. 98–170 & CG Docket No. 04–208, FCC 05–55 (Rel. March 18, 2005 (*"Second FNPRM"*). A summary of the *Second FNPRM* was published in the Federal Register on May 25, 2005. See 70 Fed. Reg. 29979.

The FCC asserts it has the authority to preempt states from enacting and enforcing industry-specific laws passed to protect that state's consumers from the various scams and schemes imaginative con artists will always devise. Assertions that are based on the FCC's agreement with the wireless and VoIP industries that cell phone and VoIP providers are nationwide in their scope of business (which is true) and it is too cumbersome for these nationwide providers to have to comply with numerous and allegedly different state laws governing their conduct (which is not true).[3] Assertions, we feel, that do a grave disservice to consumers.

In fact, the FCC's position is that not only does it have the authority to preempt states from regulating wireless rates, it also has the authority to preempt state consumer protection statutes dealing with "non-rate" items on the ground "there are clearly discernable Federal objectives that may be undermined by states' 'non-rate' regulation of CMRS carriers billing practices." *Second FNPRM* at para. 50. This assertion by the FCC contradicts Congress' clear statement otherwise.

It is our concern the FCC has unilaterally attempted to take its authority to a place Congress has not yet been willing to go—uniform national standards applicable to all of the business practices of wireless and VoIP carriers that will virtually eliminate the states' traditional consumer protection role as to these telecommunication technologies. This attempt not only intrudes on traditional rights of the states to determine their own consumer protection laws, but also intrudes on this body's right to balance the various and diverse public interests and to determine whether uniform national standards in these areas are, as a matter of public policy, necessary. A solitary Federal agency should not have that authority.

The courts have held the states have an important interest in enforcing their consumer protection statutes, an interest that has been recognized by the Supreme Court of the United States. *See, e.g., Cedar Rapids Cellular Telephone, L.P.* v. *Miller*, 280 F.3d 874, 880 (8th Cir. 2002), citing *Central Hudson Gas & Elec. Corp.* v. *Public Serv. Comm'n of New York*, 447 U.S. 557, 563, 65 L.Ed.2d 341, 100 S.Ct. 2343 (1980). The courts have also observed that Congress has given the states "some latitude to 'protect the public safety' and 'safeguard the rights of consumers.'" *Cedar Rapids Cellular*, 280 F.3d at 800, citing 47 U.S.C. § 253(b).

The broad constitutional underpinning of preemption is the Supremacy Clause of the United States Constitution. Clearly, laws passed by Congress preempt conflicting state laws. Where there is no conflict, however, dual sovereignty allows complementary state and Federal laws to exist. Furthermore, the presumption is that Congress does not intend to preempt state law, unless it speaks with clarity otherwise.

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[1] "Cramming" refers to "charging a consumer for services that were not ordered, authorized or received." *Brittan Communications Int'l. Corp.* v. *Southwestern Bell Tel. Co.,* 313 F.3d 899, 902 n. 2 (5th Cir. 2002).

[2] "Slamming" is "generally recognized as 'the illegal practice of changing a consumer's telephone service without permission.'" *Lovejoy* v. *AT&T Corp.,* 111 Cal.Rptr.2d 711, 714 n. 1 (Cal. App. 2001), citing FCC Consumer Facts.

[3] *See, e.g., Second FNPRM* at para. 52 "We believe that limiting state regulation of CMRS and other interstate carriers' billing practices, in favor of a uniform, nationwide, Federal regime, will eliminate the inconsistent state regulation that is spreading across the country, making nationwide service more expensive for carriers to provide and raising the cost of service to consumers."

Nothing in the Constitution, the Act, judicial precedent or the telecommunications industry supports the broad preemption asserted by the FCC in the *Second FNPRM*. State commissions have long regulated the billing practices of local, interexchange and wireless carriers, in order to ensure that those practices are fair, reasonable, lawful, nondiscriminatory, etc. under terms of state law. These regulations have existed alongside Federal regulatory, or deregulatory, policies and rules.

According to the FCC, such state regulations must now be preempted in order to achieve its goal of promoting competition. The FCC does not discuss what changes in the law compel this sweeping change in regulatory policy. The FCC cites no expression of Congressional intent or any particular provision of the Act in support of its conclusions. In fact, the expressions of Congressional intent in the 1993 amendments to 47 U.S.C. § 332(c)(3)(A) contradict the FCC's conclusions. Section 332(c)(3)(A) expressly preserves to states jurisdiction over "other terms and conditions" of wireless service. The legislative history of the section provides strong evidence of Congress' intent that preemption of state jurisdiction over commercial mobile services was meant to be limited, and that the reservation of jurisdiction to the states should be widely, not narrowly interpreted. Nothing has changed the legal backdrop against which the FCC's order was issued.

In fact, the FCC's stated rationale for the desirability of a uniform national standard—wireless is an national industry and therefore should not be subject to a myriad parochial state interests—is a rationale without substance. The question is not whether the wireless industry is a national industry—it is, as is the banking industry, the insurance industry, the trucking industry, the drug industry, the tobacco industry, the credit industry and a host of others. The question is, do states have a legitimate interest in crafting their own consumer protection laws regarding wireless and VoIP in areas not otherwise reserved by the Federal Government, such as rates and entry into the market as explicitly reserved in 47 U.S.C. § 332(c)(3)(A)? Clearly, the answer is yes. States have long protected their citizens in whatever unique ways they desire, ranging from contract terms that were, in their judgment, onerous or necessary or from business practices they deemed not desirable. For instance, most states have unique laws governing credit terms of national companies and unique franchise terms that must be in (or out of) national franchise agreements in their states.

Those requirements exist alongside Federal laws governing the same fields—federal laws that are usually a floor. Yet Congress, or the Federal agencies regulating those areas, have not felt the need to preempt the states from enacting those laws, even though they usually, to some degree or another, force "national" industries to craft their dealings with one states' citizens in a manner different than their dealings with those of another state. And, if asked, most executives in those national industries would undoubtedly say they also would prefer not having to deal with 50 different state laws. Yet they do and they survive and make a profit, usually. If they don't, it's not because of the difficulty with complying with different state laws by the national headquarters.

The manner in which a person makes a telephone call should not be dispositive of whether that person's state consumer protection laws apply to the carrier providing the service. If that person enters into a contract with a wireless, wireline or VoIP provider, the state has a legitimate interest in assuring that its citizens will be treated fairly and not taken advantage of—just like the state has a legitimate interest in assuring its citizens will be treated fairly with respect to their need to have insurance, banking, credit terms and the like.

Not only is the FCC's unilateral assumption of power constitutionally suspect, there are very real and practical negative considerations flowing from its unilateral preemption fiat. Those problems were summed up by FCC Commissioner Michael Copps in his separate statement in the FCC's rulemaking in this matter:

> In the six years since adoption of our truth-in-billing requirements, I cannot find a single Notice of Apparent Liability concerning the kind of misleading billing we are talking about today. . . . Yet in the last year alone, the Commission received over 29,000 non-slamming consumer complaints about phone bills.

Second FNPRM, separate statement of Commissioner Michael J. Copps. How is the FCC going to investigate the thousands of complaints it will receive concerning wireless business practices? I can't say it anymore eloquently than did Commissioner Copps: "I'm afraid consumers will remember that when they called this Commission for help understanding their bills, we hung up." *Id.*

States play a vital role in protecting their citizens from the unscrupulous in ways they deem appropriate for that state. No doubt, wireless and VoIP providers would prefer not to have to deal with 50 separate state attorneys general or public utility

commissions enforcing their statutes protecting their consumers.[4] They would much prefer to deal with a single understaffed and overworked Federal agency. However, allowing that to occur is a policy decision for this body to make—not the FCC.

In your deliberations on this important issue, I hope you will not heed the false siren song sung by these industries that only uniform Federal laws will allow them to prosper and profit, as did the FCC. They should be asked over and over, as has NASUCA: why are your industries so different from all the other national industries that must comply with dual Federal and state consumer protection laws governing their conduct, that you should be treated differently? They have had no reasonable answer for us and, I feel confident, they will have no reasonable answer for you. Once you ask that question and receive the expected answer (more likely non-answer) I am also confident Congress will deem it not advisable to preempt state consumer protection laws applicable to these industries.

Thank you for this opportunity to testify. I would be happy to address any questions.

[4] In fact, in a 1996 survey, it was noted 19 state PUCs (subsequently raised to 22 states), had no authority over wireless. In addition, attached to the printed testimony is a spreadsheet of a NASUCA survey of complaints filed with the FCC's Consumer and Government Affairs Bureau that reveals the majority of wireless complaints involved rates, which states are explicitly prohibited from regulating.

NASUCA ANALYSIS OF WIRELESS AND WIRELINE COMPLAINTS RECEIVED BY CGB

	WIRELESS COMPLAINTS			WIRELINE COMPLAINTS								TOTAL			
	Total	Billing & Rates	Billing & Rates % of Total	Total	TCPA Related	Billing & Rates	Billing & Rates % of Total	Billing & Rates % Total (excludes TCPA)	Slamming	Slamming % of Total	Slamming % Total (excludes TCPA)	Billing & Rates	Billing & Rates % of Total Complaints	Billing & Rates % of Total Complaints (excludes TCPA)	Slamming % of Total Complaints (excludes TCPA)
1Q2002	2,978	1,850	62.1%	7,204	1,273	3,350	46.5%	56.5%	767	10.6%	12.9%	5,200	51.1%	58.4%	7.53%
2Q2002	2,805	1,682	60.0%	7,181	1,385	3,193	44.5%	55.1%	1001	13.9%	17.3%	4,875	48.8%	56.7%	10%
3Q2002	4,305	2,571	59.7%	9,204	1,822	4,234	46.0%	57.4%	1586	17.2%	21.5%	6,805	50.4%	58.2%	11.70%
4Q2002	4,059	2,598	64.0%	11,625	3,009	4,853	41.7%	56.3%	1895	16.3%	22.0%	7,451	47.5%	58.8%	12%
1Q2003	4,119	2,548	61.9%	13,502	4,085	5,523	40.9%	58.6%	1740	12.9%	18.5%	8,071	45.8%	59.6%	9.90%
2Q2003	3,901	2,438	62.5%	10,418	3,342	4,190	40.2%	59.2%	1476	14.2%	20.9%	6,628	46.3%	60.4%	10%
3Q2003	4,825	2,666	55.3%	11,093	4,456	4,166	37.6%	62.8%	1467	13.2%	22.1%	6,832	42.9%	59.6%	9%
4Q2003*	5,065	2,940	58.0%	20,423	13,791	4,077	20.0%	61.5%	1369	6.7%	20.6%	7,017	27.5%	60.0%	4.70%
1Q2004*	5,926	3,587	60.5%	17,680	11,494	3,613	20.4%	58.4%	1494	8.5%	24.2%	7,200	30.5%	59.4%	5.60%
2Q2004*	6,213	3,732	60.1%	15,242	8,842	3,937	25.8%	61.5%	1418	9.3%	22.2%	7,669	35.7%	60.8%	6%
3Q2004*	8,417	4,927	58.5%	16,827	9,412	5,081	30.2%	68.5%	1097	6.5%	14.8%	10,008	39.6%	63.2%	4%
4Q2004*	4,113	2,300	55.9%	11,228	7,954	2,144	19.1%	65.5%	526	4.7%	16.1%	4,444	29.0%	60.2%	3%
1Q2005	7,330	4,006	54.7%	16,765	10,696	4,300	25.6%	70.9%	706	4.2%	11.6%	8,306	34.5%	62.0%	2.90%
2Q2005	6,783	3,320	48.9%	15,323	10,380	3,465	22.6%	70.1%	469	3.1%	9.5%	6,785	30.7%	57.9%	2%
3Q2005	6,873	3,259	47.4%	20,899	16,160	3,237	15.5%	68.3%	391	1.9%	8.3%	6,496	23.4%	55.9%	1%

*The wireless complaints exclude complaints associated with wireless number portability. The number of wireless portability related complaints were as follows: 4Q03=3447; 1Q04=2904; 2Q04=946; 3Q04=703; 4Q04=256. CGB ceased reporting wireless number portability complaints in 1Q05.

The CHAIRMAN. Thank you very much. Our next witness is Michael Altschul, Senior Vice President, General Counsel of CTIA, The Wireless Association of Washington, D.C. Mr. Altschul.

STATEMENT OF MICHAEL F. ALTSCHUL, SENIOR VICE PRESIDENT/GENERAL COUNSEL, CTIA, THE WIRELESS ASSOCIATION®

Mr. ALTSCHUL. Thank you, Chairman Stevens and Senator Lautenberg for holding this hearing. I am Michael Altschul, the Senior Vice President, General Counsel of CTIA, The Wireless Association®. We represent all sectors of the wireless communications industry which includes carriers, manufacturers and the companies that provide wireless data services. We appreciate the opportunity to discuss the industry's views on municipal networks and the role of Federal and local government in connection with communications regulation.

With your permission, I'd like to submit my written statements for the record and focus my remarks on a few key points. While CTIA has taken no position on the issue of whether municipal-sponsored networks should be restricted, we strongly believe that local governments should not be allowed to impede competition through discriminatory regulations, discriminatory taxes and discriminatory access to rights-of-way and other facilities needed for wireless antennas. No municipality or state or other local government should be allowed to favor one wireless broadband services competitor over another, especially their own. Commissioner Sahr pointed out that before the FCC at the moment is a dispute involving Logan Airport which seeks to create a monopoly on WiFi provision and prevent other service providers from providing broadband service to the facility. That simply should not be permitted.

Today, wireless broadband service is being provided competitively using both licensed and unlicensed spectrum with typical speeds of 400 to 700 kilobits per second, which is approximately ten times faster than dial-up Internet access. While municipal-sponsored broadband networks are focused using unlicensed spectrum and WiFi technology, the Nation's wireless carriers have used their licensed spectrum to deploy third generation services called 3G services offering DSL-like speeds in hundreds of markets, and they're aggressively expanding their broadband coverage to hundreds more.

While CTIA's members have deployed these broadband technologies in the Nation's largest cities, many small towns and communities across America also have this service. Alaska Communications System offers its ACS mobile broadband and EV–DO service everywhere that it provides a wireless voice coverage in the state of Alaska. Midwest Wireless, headquartered in Mankato, Minnesota, provides broadband wireless Internet services to more than 20 small communities in the upper Midwest.

Another CTIA member, Cellular South, offers EV–DO service in Starkville, Mississippi, a town of approximately 20,000 citizens. It is clear from these examples that competitive wireless broadband services can be provided to large and small communities by multiple service providers using licensed and unlicensed spectrum and different technologies. Congress's goal should be to facilitate the efficient employment of competitive broadband services. Accordingly, we support adoption of a uniform national deregulatory framework as the best means to achieve this goal. Unlike copper loops, radio waves can't be made to stop at a state's border. Cellular and PCS

licenses typically encompass more than one state in a single area. And as the FCC already has determined, packets race through the Internet without regard to the geographic endpoints of the communication.

Because these broadband Internet services are interstate in nature, and because wireless services are provided to consumers without regard to geographic boundaries, the national framework will best allow the facilitation of consistent protections for consumers of broadband services. We believe that all providers of wireless broadband service should be subject solely to Federal regulation because a balkanized regulatory framework with as many as 51 different sets of rules and requirements would frustrate consumers and needlessly burden carriers.

Courts have long recognized that where it is impractical or impossible to identify traffic as interstate or intrastate, Congress and the FCC may regulate such services as interstate. In the past, the FCC found the traffic bound for information service providers as properly classified as interstate because the intrastate component cannot be separated from the interstate. The same rationale applies to wireless broadband services provided by CMRS carriers.

State rules make no sense when wireless bills are sent via the Internet to electronic mailboxes and not to a brick and mortar location with a state and local address. And how do any one state's rules apply when wireless consumers subscribe to family plans that offer all members of a household wireless service for a single monthly bill? In many households, the kids are in college across the country, and the parents are often away from home. What state has jurisdiction over a complaint involving a child at college that's in a different state than the location where the bill comes?

Moreover, IP-based services do not have geographic endpoints, nor do consumers care that the information they are accessing over the Internet may be stored on servers and computers in another state. For competitive services that operate without regard to jurisdictional boundaries, exclusive Federal regulation makes the most economic sense. Allowing state and local governments to regulate national markets increases the cost associated with advertising, pricing and regulatory compliance and accordingly can hinder deployment and consumers' access to the benefits these services offer.

Increasingly, CMRS carriers have announced dual-mode devices and services that allow customers to use either licensed CMRS spectrum or unlicensed WiFi spectrum to connect to the Internet using a single wireless device. In this hybrid environment, consumers will not know or care whether their wireless applications are being provided over a cellular or PCS network or through an unlicensed WiFi or WiMax link to the Internet. Just as broadband services will be provided seamlessly to wireless users, consumers need a seamless regulatory structure that provides uniform rights and expectations regardless of whether their broadband applications are delivered over licensed or unlicensed spectrum.

The growth of these hybrid-converged services also highlights the need for a national framework. Where a service provider offers a converged service that allows customers to access the network over a variety of technology platforms using a single device, consumers should be provided a seamless experience by a policy of regulating

down to the least regulated element of that service. This approach will minimize consumer confusion about the rights and responsibilities that attach to the services they purchase. In instances like this, the technology or spectrum band being utilized to offer the service makes no difference to the user.

CTIA firmly believes that regulating a converged service on the basis of a more heavily regulated technology will needlessly burden and deter the development and deployment of innovative more efficient services. On the other hand, adoption of a "regulate down" uniform national framework will facilitate the rapid deployment of these new devices and services. With that, Mr. Chairman, I thank you for the opportunity to testify.

[The prepared statement of Mr. Altschul follows:]

PREPARED STATEMENT OF MICHAEL F. ALTSCHUL, SENIOR VICE PRESIDENT/GENERAL COUNSEL, CTIA, THE WIRELESS ASSOCIATION®

Good morning Chairman Stevens and Co-Chairman Inouye, and distinguished Members of the Committee. I am Michael Altschul, Senior Vice President and General Counsel at CTIA, The Wireless Association®. CTIA is the international organization that represents all sectors of the wireless communications industry: wireless carriers, manufacturers, and data companies. I am privileged to appear before you today to discuss the wireless industry's views on municipal networks and the role of Federal, State, and local government in connection with communications regulation. While CTIA has taken no position on the issue of whether municipal-sponsored networks should be restricted, I appreciate this opportunity to discuss the appropriate role of Federal, State, and local government in the digital world.

Given the clear social and economic benefits of ubiquitous broadband Internet access, we need a regulatory environment that will facilitate the continued growth of these broadband networks. Wireless broadband is poised for explosive growth. To avoid hobbling this growth, Congress must ensure that wireless broadband is subject to a Federal regulatory framework that is deregulatory in scope, regardless of the technology used. Broadband providers should be subject solely to Federal regulation because wireless broadband services are consumed without regard to geographic boundaries. A balkanized regulatory framework will only burden this nascent industry, frustrate consumers and dampen the deployment of new and innovative technologies. CTIA strongly believes that broadband providers should be regulated with a light regulatory touch, if at all.

It is inappropriate to impose burdensome regulations upon wireless broadband providers at this time. The goal of broadband regulation, if needed at all, should be to facilitate the efficient deployment of broadband Internet access services and policymakers must ensure they do not discourage the deployment of wideband technologies. A uniform deregulatory framework should be adopted which will allow new and innovative broadband services to flourish. Moreover, because broadband Internet access services are inherently interstate in nature, they should be regulated only at the Federal level, if regulation is deemed necessary. CTIA firmly believes that regulation of broadband services market should be limited to instances of market failure, and specific consumer protection standards should be mandated only where it is clear the market has not produced satisfactory results.

Wireless Broadband Services Are Being Deployed At a Rapid Pace

Over the past few years, wireless licensees have made significant investments to deploy next generation technologies across the country. The rise of IP-based networks and the proliferation of wireless data services has changed the dynamics of the telecommunications market. Broadband services, especially wireless broadband, are exploding across the country. Specifically,

- Verizon Wireless has launched a broadband network based on evolution data only (EV–DO) technology available in 171 metropolitan markets covering more than 140 million people;
- Sprint Nextel began to roll out its EV–DO technology in mid-2005 and now offers wireless broadband services in 208 markets;
- In December, Cingular Wireless announced that subscribers could access its BroadbandConnect service through Cingular's new 3G network;

- Alltel offers its Axcess Broadband service, which provides data rates comparable to wired broadband, in nine metropolitan areas;
- In addition to its extensive network of wireless hotspots, T–Mobile offers mobile Internet access though its GPRS service; and
- According to CTIA's semi-annual wireless industry survey, as of mid-2005, half of all wireless customers had mobile devices that were capable of web-browsing.

Wireless companies are also deploying broadband technologies designed for "fixed" devices. These developments illustrate the rapid pace at which the wireless industry is moving to expand the benefits of broadband services to all Americans:

- Clearwire and Intel have teamed to deploy devices based on Wi-MAX technology that will allow for city-wide wireless broadband Internet access; and
- Sprint and Samsung are working on next-generation wireless networks that use the IEEE 802.16e standard (Wi-MAX).

Cable and other wireline broadband providers are deploying broadband as well:

- In the third quarter of 2005, cable modem service and wireline DSL had increases of 1.2 and 1.4 million subscribers respectively;
- In December, BellSouth introduced its new FastAccess DSL 6.0 Internet service with download speeds of up to 6 Mbps;
- Verizon is currently offering its new FiOS Internet Service over its fiber to the premises (FTTP) network, which provides download speeds of up to 5, 15, and 30 Mbps; and
- Comcast announced a 24.2 percent increase to its high-speed Internet subscribers in the third quarter of 2005, resulting in a 19.9 percent penetration rate among its cable subscribers.

Because radio waves don't stop at a state border, and because packets race through the Internet without regard to the geographic end points of the communication, wireless broadband services are provided to consumers without regard to geographic boundaries, and are, therefore, inherently interstate in nature. A deregulatory national framework will allow for the facilitation of consistent protections for consumers of broadband services, thus maximizing the benefits for customers.

IP networks are not typically configured to identify the originating or terminating point of a data packet. Broadband services offer end users the benefit of mobility and the ability to utilize a service or application from any point on the public Internet. Consumers are able to access information from servers and computers that often are in other states and countries. Additionally, IP networks generally do not send data packets over the same routes; rather the information is sent over multiple paths and compiled at the end-point.

Where it is impractical or impossible to identify traffic as interstate or intrastate, Congress and the FCC may regulate such services as interstate. In the past, the FCC found that traffic bound for information service providers is properly classified as interstate because the intrastate component cannot be separated from the interstate. The same rationale applies to broadband Internet access traffic, particularly CMRS broadband traffic.

National CMRS carriers have announced plans to introduce dual mode CMRS/WiFi devices and services. For example, Qualcomm has announced that it is teaming up with networking silicon vendor Atheros Communications on a reference design for dual-mode cell and WiFi phones. T-Mobile is also launching two styles of WiFi phones: the SDA and the MDA. Both devices offer speeds around 70 to 135 kilobits per second, have Bluetooth connectivity, a 1.3 megapixel camera and MP3 players, and both use the Windows Mobile 5.0 operating system. In this hybrid environment, consumers will not know, or care, whether their wireless applications are being provided over a licensed CMRS network, or an unlicensed WiFi or WiMax link to the Internet. Just as broadband services will be provided seamlessly to wireless users, consumers need a seamless regulatory structure that provides uniform rights and expectations regardless of whether their broadband application was delivered over licensed or unlicensed spectrum.

A Deregulatory National Framework Will Facilitate Consistent Consumer Protection

For services such as broadband that operate without regard to jurisdictional boundaries, exclusive Federal regulation makes the most economic sense. This is best illustrated by Federal regulation of the CMRS industry. Under a deregulatory Federal framework the wireless industry has experienced explosive growth. Since 1985, the total number of CMRS subscribers has increased from roughly 200,000 to

over 200 million while the average monthly bill has dropped from $95 to under $50. This growth and resulting consumer benefits have occurred in an environment free from cumbersome and inconsistent state-by-state regulations.

Professor of Law & Economics, Thomas W. Hazlett has said that decentralized regulations are not effective "[w]hen economic realities dictate that production of goods is efficiently done across jurisdictions (i.e., economies of scale stretch beyond state borders)." Allowing states and local governments to regulate national markets increases the costs associated with advertising, pricing, and regulatory compliance. Thus, a balkanized regulatory framework increases the costs of deploying new and innovative services and can hinder consumers' access to the benefits of technical advancements.

In order for America to remain competitive in an increasingly global economy, the United States must work to promote the deployment of broadband services across a multiplicity of technological platforms. Broadband penetration in the United States is growing, but that growth would be threatened by an uncertain regulatory regime, especially a regulatory regime with multiple state regulations or state interpretation of Federal regulations. Congress can best facilitate the advancement of emerging broadband technologies by facilitating the development of a consistent national framework for broadband Internet access services.

The Broadband Market Should Be Regulated With a Light Regulatory Touch

Consumers have multiple choices for their broadband needs. They may choose to obtain access to the IP network over DSL lines, cable modem service, or wireless providers that have deployed a variety of technologies in both licensed and unlicensed spectrum bands. The ability of consumers to choose their broadband provider from a variety of technology platforms and from different carriers within those platforms has provided the appropriate competitive incentives for broadband providers and facilitated the deployment of broadband services. Although there is a legitimate interest in protecting consumers, sound public policy requires that intervention is necessary only where the market has not sufficiently protected consumers.

Instead of using different devices for different voice, data, or video services, many consumers increasingly demand one-stop access to voice, data, and video services of their choice over the same device or a set of integrated devices utilizing the best available network infrastructure—whether that is, for example, mobile wireless or WiFi connectivity. The growth of these hybrid converged services highlights the need for a deregulatory national framework for all broadband services. Where a service provider offers a converged service that allows customers changing locations to access the network over a variety of technology platforms, consumers should be allowed a seamless experience by a policy of "regulating down" to the least regulated element of that service. This approach will minimize consumer confusion about the rights and responsibilities that attach to services they purchase. From the consumer's perspective, the technology utilized to offer service does not make a difference. Thus, seamless regulation across multiple broadband platforms should be allowed.

For example, if a consumer were to use a handset with CMRS voice capabilities along with WiFi technology, that handset could work seamlessly between the consumer's cellular or PCS service and a broadband service provided over a wireless router and a wireline broadband connection in the home. From the consumer's perspective, as he or she steps five feet from the house, and switches from a WiFi network to a cellular network, there is no difference in the service that is being offered. Consumer electronic manufacturers are working to develop such technologies, which will allow for customer equipment to use the most efficient system available to provide service. The adopting of a "regulate down" framework will facilitate the rapid deployment of these devices. CTIA firmly believes that regulating a converged service on the basis of the more heavily regulated technology will often burden and deter the development and deployment of seamless, efficient services.

Competition Is Providing the Incentives for Broadband Providers to Meet Consumers' Needs

A competitive market is the best tool for promoting social policy goals, and the broadband industry is poised for an explosive increase of competition among and between technology platforms. Robert W. Crandall of The Brookings Institution has said that competition between cable companies and incumbent telephone companies "has a statistically significant positive effect on overall broadband penetration in the United States." Added to this, wireless broadband services, whether fixed, mobile, or satellite, are emerging as viable competitors for broadband subscribers. Telephone companies are investing heavily in fiber to the home (FTTH). At the same

time, the wireless industry is investing in new technologies such as Orthogonal Frequency Division Multiplexing (OFDM), Wideband Code Division Multiple Access (WCDMA), EV–DO and others, to increase the potential for new and beneficial services for consumers.

Heavy handed regulation of the broadband market will deter investment in new technologies and thus delay the consumer benefits that flow from innovative services and technologies. Analysts have estimated the benefits of universal broadband to Americans to be as high as $300 billion a year. Beyond the every day benefits, ubiquitous broadband services have great potential to help the elderly and those with disabilities. If the deployment of broadband services are delayed or reduced by burdensome regulations, the benefits of universal broadband service will be drastically reduced.

Congress has established that it is the policy of the United States to promote the development of the Internet and preserve the "vibrant and competitive" Internet market. The FCC has recognized that it can best serve the public interest by allowing market conditions to drive the development of the broadband industry. CTIA has urged the FCC, and urges Congress to continue to promote a competitive market for Internet services by developing a deregulatory national framework for broadband Internet access services.

There are many benefits that competition brings to the protection of consumer interests. The deregulatory approach Congress and the FCC established for the CMRS industry has promoted competition and benefited consumers. A light regulatory framework for the broadband industry could achieve similar results. Like the wireless industry, the broadband industry is a nascent market and highly competitive, within and across multiple technology platforms. Although growth of broadband services in the United States has been impressive, there remains significant room for additional growth in the coming years. Just as with the CMRS experience, broadband service growth has occurred in an environment of minimal regulation. Now is not the time for cumbersome and overlapping regulatory mandates. A light regulatory touch will spur competition and best ensure that consumers will continue to have a variety of carriers and innovative new services to choose from in the expanding broadband marketplace.

Conclusion

CTIA and the wireless industry support a uniform national deregulatory framework for all broadband Internet access services, regardless of the underlying technology. This legislative and regulatory approach will ensure the continued deployment of new and innovative services utilizing the most efficient technologies available. Thank you for this opportunity to discuss the effects of Federal and state regulation on broadband networks and the potential impact on competition and consumers.

The CHAIRMAN. Thank you very much. Our next witness is Donald Berryman, President of Municipal Networks, EarthLink, Inc. of Washington, D.C. Oh, you're first, Mr. Boone, pardon me. Douglas Boone, Chief Executive Officer, Premier Communications, Sioux Center. Pardon me.

STATEMENT OF DOUGLAS A. BOONE, CHIEF EXECUTIVE OFFICER, PREMIER COMMUNICATIONS

Mr. BOONE. Thank you, Chairman Stevens and Senator Lautenberg and Members of the Committee. I am Douglas A. Boone, Chief Executive Officer of Premier Communications headquartered in Sioux Center, Iowa. I appreciate the opportunity to appear before you today, both in my capacity as the CEO of Premier as well as on behalf of the United States Telecom Association.

Mr. Chairman, thank you for holding this hearing today and for your strong support for companies serving rural America. While we recognize the concern and sometimes the perceived need for government-owned networks, we are concerned about the ramifications of a one-size-fits-all solution across the country. This is an issue that should be left to the states and local government to work out between themselves. I hope the testimony I offer here today will

serve as a cautionary note to those who would use Federal legislation to provide local governments with a blank check to enter lines of business traditionally served by the private sector.

I would like to spend a few minutes describing a situation we are facing in Sanborn, Iowa, a community we have well served for almost 40 years. In this rural community of 1,300 people, Premier has experienced firsthand the effects of a local municipality building a network redundant to ours and then being forced to compete with that municipality for the same customers. The simplest way to measure this impact is that over the past 4 years, we have lost nearly 50 percent of our subscribers. Did we lose these customers because we were not providing the voice and data services customers wanted or because we were overpricing our services? Absolutely not. The services we provided at the time and continue to provide are second to none, and the rates charged were fair and well below the rates being charged in surrounding communities. However, that did not stop local government representatives from making insinuations of raised taxes if the citizens did not take the municipal services. Obviously, this would be very persuasive to many customers.

I understand that competition is good. We are seeing its effects in every sector of the industry. However, for competition to be truly effective, the playing field must be reasonably level. This is extremely difficult when setting the private sector networks against the government-funded networks. The most obvious inconsistency between private and public sector networks is in the area of taxes. As a private company, we pay the local, state and Federal taxes. These account for more than 40 percent of our profits. Our taxes support the workings of government, law enforcement, social programs, education and national defense. We accept that as our corporate responsibility. Local governments do not pay taxes. It is difficult to compete when the local municipality starts out with a 40 percent discount.

Another major inconsistency between private and public is in the geographic areas they serve. For 100 years, Premier Communications has served all customers, whether in the city or in the rural areas surrounding our communities. The government networks have stated they have no intention of serving the rural areas because of the high cost of providing service. We have accepted that responsibility, but will not be able to continue to do this if we lose the customer base in our communities to local government networks. At the Iowa State Legislature, there is always a great deal of debate on economic development. I find it interesting that with all this talk of economic development and wondering how we can support small, rural communities, the city of Sanborn would prefer that we exit the market and leave millions of dollars in stranded network investment.

It is somehow forgotten that Premier has employees that have lived, worked and shopped in Sanborn for decades. The reality is that local government has no real choice. Once a local network is built and the investment has been made, they must do whatever it takes to make it financially viable no matter whom it may harm. Rural Iowa has witnessed tremendous growth in telecommunication services in recent years thanks to private providers like Pre-

mier who have invested and risked millions of dollars to upgrade their networks and technology. I believe private companies are committed to investing in the networks, but may be reluctant to do so if the threat of local government network overbuilding continues.

I understand there are legitimate questions about providing broadband service in rural and underserved areas. In place of legislation that simply waives any state rule in these decisions, let me offer three recommendations. First, promote broadband in rural and underserved areas by strengthening and stabilizing Universal Service making broadband investment eligible for USF support. Second, ensure adequate resources are available to USDA rural utilities programs that help private communications carriers enhance the services they provide to rural communities. Last, where government entity enters a market served by the private sector, ensure it cannot do so in an anti-competitive manner that discourages private investment. Thank you.

[The prepared statement of Mr. Boone follows:]

PREPARED STATEMENT OF DOUGLAS A. BOONE, CHIEF EXECUTIVE OFFICER, PREMIER COMMUNICATIONS

Mr. Chairman, Co-Chairman Inouye and Members of the Committee, I am Douglas A. Boone, Chief Executive Officer of Premier Communications, headquartered in Sioux Center Iowa. I appreciate the opportunity to appear before you today both in my capacity as the CEO of Premier as well as on behalf of the United States Telecom Association (USTelecom), regarding government-owned networks and their impact on rural companies like ours.

USTelecom is the premier trade association representing service providers and suppliers for the telecom industry. USTelecom's 1,200 member companies offer a wide range of services, including local exchange, long distance, wireless, Internet, Internet Protocol video and telephony and cable television service. Our membership ranges from the smallest rural telephone companies to some of the largest corporations in the U.S. economy.

Premier Communications is the communications leader of voice, video and data services in northwest Iowa. We have the privilege of providing services in 18 rural communities throughout northwest Iowa. Our extensive fiber optic network allows Premier Communications to offer the best in cable television programming, high speed Internet services, local and long distance telephone and high capacity data and voice circuits.

Mr. Chairman, thank you for holding this hearing today, and for your strong support for companies serving rural America. The familiarity of you and other Committee Members with rural America is particularly important on this issue. You know that "examples" from major cities are not always relevant in rural America.

While we recognize the concern, and sometimes the perceived need, for government-owned networks, we are concerned about the ramifications of a federally imposed standardized, one-size-fits-all, solution across the country. This is an issue that should be left to the states and localities to work out between themselves. I hope the testimony I offer here today will serve as a cautionary note to those who would use Federal legislation to provide local governments with a blank check to enter lines of business traditionally served by the private sector.

Government owned networks are not akin to other public utilities. In fact, government networks are more akin to City Hall opening a chain of grocery stores or gas stations. They typically require heavy taxpayer subsidization, which minimizes any net benefit to local residents. They also benefit from tax advantages and regulatory exemptions that do not apply to private firms. Because they are not subject to the pressures and stresses of the marketplace, they often neglect innovation, which leads to technological stagnation over time. As a general principle, bear in mind that building out existing networks is far more cost-effective than building an entire network from the ground up and maintaining and upgrading it over time.

I would like to spend a few minutes describing a situation we are facing in Sanborn, Iowa, a community we have served for almost 40 years. In Sanborn, Premier has experienced first hand the effects of a local municipality building a net-

work that was redundant to ours and then being forced to compete with that municipality for the same customers. In this case, a very small customer base of 1,000.

The simplest way to measure this impact is that over the past 4 years we have lost almost 50 percent of our subscribers. Did we lose these customers because we were not providing the services customers wanted or because we were overpricing our services? Absolutely not. The services we provided at the time and continue to provide are second to none and the rates charged were fair and well below the surrounding communities. However that did not stop local government representatives from making insinuations of raised taxes if the citizens did not take the municipal services. Obviously this would be very persuasive to many customers.

I understand that competition is good. We are seeing its effects in every sector of the industry. However, for competition to be truly effective the playing field must be reasonably level. This is extremely difficult when setting the private sector networks against the government funded networks.

The most obvious inconsistency between the private and public sector networks is in the area of taxes. As a private company we pay local, state and Federal taxes. These account for more than 40 percent of our profits. Our taxes support the workings of government, law enforcement, social programs, education and national defense. We accept that as our corporate responsibility. Local governments do not pay taxes. It is difficult to compete when the local municipality starts out with a 40 percent discount. As a matter of fact a representative from the City of Sanborn said local government does not need to show a profit as long as they can pay off the debt on the network they built. That attitude may work for a short while but it will not serve the customer very well in the long run because deployment of new technologies and upgrades to infrastructure must come out of profits.

Another major inconsistency between private and public is in the geographic areas they serve. For 100 years Premier Communications has served all customers, whether in the city or in the rural areas surrounding our communities. The government networks have stated they have no intention of serving the rural customers because of the high cost of providing service. We have accepted that responsibility but will not be able to continue to do this if we lose the customer base in our communities to local government networks.

At the state legislature in Iowa there is always a lot of debate on economic development. I find it interesting that with all this talk of economic development and wondering how we can support small rural communities that we face a situation in Sanborn were we are being told we are not wanted. The municipality would prefer that we would just exit the market and leave millions of dollars in stranded network investment. It is somehow forgotten that Premier has employees that have lived, worked and shopped in Sanborn for decades. We have a staffed business office in Sanborn that has been open for decades. These are things most small rural communities say they want when drawing a business into a community. The reality is that the municipality has no real choice—once a local network is built and the investment has been made they must do whatever it takes to make it financially viable—no matter who it may harm.

Rural Iowa, as in rural areas all across the country, has witnessed tremendous growth in telecommunications services in recent years, thanks to private providers like Premier who have invested and risked millions of dollars to upgrade their networks and technologies.

Customers will continue to require higher capacity networks to grow and adapt to the exciting new personal, entertainment and business services that use broadband technologies. Private companies are committed to investing in their networks but may be reluctant to do so if the threat of municipal network overbuilding continues.

Many who promote the idea of municipal-owned broadband networks are touting their plans as "no-risk," but numerous municipalities around the country who bought into the "no risk" idea have found themselves unable to support and finance the continual and expensive upgrades needed to maintain a local network.

A recent study in my home state of Iowa further confirms Premier's experience. Ronald Rizzuto, professor of finance at the University of Denver looked at the financial performance of three municipal communications systems operating in the areas of Cedar Falls, Muscatine, and Spencer, Iowa. Dr. Rizzuto looked at the annual financial reports of the three systems to determine whether they were paying their debts, if they could function as stand-alone entities, and the return on investment that each community achieved on the systems. He concluded "not one of them has generated a positive return on the investment." Nevertheless, many, if not most, municipal communications systems continue to assert that they are cash-flowing. I would also note that the state built Iowa Communications Network is struggling fi-

nancially, constantly putting pressure on state government for additional funding for continued network upgrades with no hope of a reasonable payback.

In addition, too many local governments are diverting funds away from education, public safety, and public works. Marietta, Georgia, spent $34 million on its municipal network, only to sell it for a $23-million loss. Ashland, Oregon, incurred millions in cost overruns. Due to these and other concerns, many states have passed legislation barring government entities from unfairly competing in the communications marketplace. These networks are built at extraordinary public cost and often in areas where private networks already exist. This deters private investment in local communications infrastructure and burdens taxpayers with a large, ongoing expense for a service they can obtain in the marketplace.

There are legitimate concerns about providing broadband service in rural and underserved areas. There may be communities, even regions of the country, where a stronger government role is needed. Let me offer three recommendations in place of legislation that simply waives any state role in these decisions:

- First, promote broadband in rural and underserved areas by strengthening and stabilizing universal service, making broadband investment eligible for USF support.
- Second, ensure adequate resources are available to USDA rural utilities programs that help private communications carriers enhance the services they provide to rural communities. I must note the FY07 proposal for the broadband loan program suffered a significant cut, to $356.4 million from a current level of $500 million.
- Lastly, where a government entity enters a market served by the private sector, ensure it cannot do so in an anti-competitive manner that discourages private investment. Specific unfair advantages would be unilateral regulatory exemptions, cross-subsidization or tax breaks.

On behalf of Premier Communications and my fellow members of USTelecom, I urge this Committee to avoid inserting itself into contentious debates occurring in states and communities across the country. There are no easy answers when it comes to promoting broadband deployment, and there are many hazards associated with putting government into competition with private network operators. The best solution is to ease the regulatory burden on private providers so they can continue to upgrade and improve their services.

The CHAIRMAN. Thank you very much. And now Mr. Berryman, Mr. Donald Berryman, President of Municipal Networks, EarthLink, Inc., Washington, D.C.

STATEMENT OF DONALD B. BERRYMAN, PRESIDENT, MUNICIPAL NETWORKS DIVISION, EARTHLINK, INC.

Mr. BERRYMAN. Thank you, Mr. Chairman, and Members of the Committee. My name is Don Berryman. I am President of EarthLink's Municipal Networks Division. EarthLink is the Nation's largest independent Internet service provider and a publicly traded company headquartered in Atlanta, Georgia. We are proud to provide Internet access and services to more than 5.3 million customers throughout the country.

Thank you for the opportunity to testify today. I ask that my full statement be made part of the record, and I'll summarize. EarthLink Municipal Networks was created to design, develop and implement new and revolutionary wireless broadband services relying on cutting edge WiFi technologies. EarthLink will provide affordable high-speed wireless Internet access to the citizens, first responders and employees of municipalities throughout the Nation, and it will do so at EarthLink's cost, at EarthLink's risk and without encumbering cities with the cost of the network. President Bush captured the promise of this technology in June 2004 when he stated: "Imagine if you're the head of the chamber of commerce of a city and you say, our city is a great place to do business, to

find work. We're setting up a WiFi hotzone which means our citizens are more likely to be more productive than the citizens from a neighboring community. It's a great opportunity." And EarthLink agrees. WiFi networks are a great opportunity for consumers, municipalities and entrepreneurs.

And I respectively urge the Members of this Committee to embrace policies such as those embodied by S. 1294, the Community Broadband Act authored by Senators McCain and Lautenberg, that give this new technology a chance. EarthLink has already partnered with the city of Philadelphia to build, own and manage, at our cost, a wireless network to provide broadband to the entire 135 square miles of Philadelphia which will be the Nation's largest municipal WiFi network. This is not a case of taxpayer-funded competition. It is not funded by tax free bonds. EarthLink is not getting special breaks. EarthLink is bearing the risk of constructing this network.

It's most like a cable franchise agreement with the city, but instead of TV, EarthLink is providing broadband access. EarthLink's partnership with Wireless Philadelphia will help bridge the digital divide by subsidizing affordable high-speed Internet. EarthLink, after approval by the Philadelphia City Council, plans to break ground on a 15-square mile Proof of Concept area in April and be fully deployed by spring of 2007. Powered by the equivalent of just 600 light bulbs, all 135 square miles of Philadelphia will be lit by the promise of affordable broadband access.

EarthLink is proposing that we unwire a number of municipalities at our cost across America including Anaheim, Milwaukee, Houston, Honolulu, Hawaii, and many others. EarthLink's approach should also be harnessed to expand broadband options in small cities. In rural areas across America, EarthLink has developed a Network Alliance program with just this goal in mind. Local entrepreneurs know best the local consumer and business needs for broadband access and services. EarthLink's Network Alliance program will aid these local businesses to help expand affordable broadband as far and as fast as possible.

More than a decade ago when commercial wireless networks were just starting to get off the ground, this Committee took some very smart actions. For example, more spectrum was made available ending what had been a wireless duopoly in allowing more competitors to enter the marketplace. Your wise actions were rewarded with a vibrant, competitive marketplace that commercial wireless is today. As a businessman trying to build the next generation of wireless networks, I respectfully urge this Committee to take the same wise, proactive pro-competition course today. Give us the chance to compete. Recognize that in this startup phase, there needs to be a strong public-private partnership. EarthLink welcomes the entrepreneurial risk. We look forward to the challenge of unwiring America's cities and towns, and I welcome your questions. Thank you for the opportunity to testify.

[The prepared statement of Mr. Berryman follows:]

PREPARED STATEMENT OF DONALD B. BERRYMAN, PRESIDENT, MUNICIPAL NETWORKS DIVISION, EARTHLINK, INC.

Mr. Chairman and distinguished Members of the Committee, I'd like to thank you for the opportunity to testify before you today.

My name is Don Berryman, and I'm President of EarthLink's Municipal Networks Division. EarthLink is a public company headquartered in Atlanta, Georgia, we are the Nation's largest independent Internet Service Provider. We are proud to provide Internet access to more than 5.3 million customers throughout the Country.

EarthLink Municipal Networks was created to design, develop and implement new and revolutionary wireless broadband services relying on cutting edge WiFi technologies. We will provide affordable high-speed wireless Internet access to the citizens, first responders, and employees of municipalities throughout the Nation—and we will do so at EarthLink's cost, at EarthLink's risk and without encumbering cities with the cost of the network.

President Bush captured the promise of this technology in June 2004, when he stated: "Imagine if you're the head of a chamber of commerce of a city, and you say, our city is a great place to do business or to find work. We're setting up a WiFi hot zone, which means our citizens are more likely to be more productive than the citizens from a neighboring community. It's a great opportunity."

EarthLink agrees. WiFi networks ARE a great opportunity for consumers, municipalities and entrepreneurs. And, I respectfully urge the Members of this Committee to embrace policies, such as those embodied by S. 1294, the Community Broadband Act, authored by Senators McCain and Lautenberg that give this new technology a chance, and reject those policies that stifle this innovative opportunity before it gets a chance to compete.

Municipal WiFi Network Case Study—The Philadelphia Story

EarthLink was recently selected by Wireless Philadelphia to develop and implement what will be the Nation's largest municipal WiFi network. Much of my testimony will examine the specifics of our agreement with Wireless Philadelphia, but let me also emphasize, that Philadelphia is only one example of the many localities EarthLink is working with across our Nation.

- EarthLink will deploy and manage a 135 sq. mile wireless network providing broadband Internet to the entire city and county of Philadelphia. Powered by the equivalent of just 600 light bulbs, 135 square miles will be lit by the promise of affordable broadband access.
- EarthLink will build, own and manage the wireless network, at no cost to the city, while providing Wireless Philadelphia a revenue share to fund its operation. And, EarthLink has guaranteed network upgrades on an ongoing basis. This is not a case of "taxpayer funded" competition, and will not lead to taxpayer funded bailouts. Nor is it funded by tax-free bonds. EarthLink is bearing the risk of constructing this network.
- EarthLink's partnership with Wireless Philadelphia will help bridge the Digital Divide, subsidizing affordable high speed Internet access to low-income households in overlooked neighborhoods.
- This network will serve all the citizens of Philadelphia by providing a competitive alternative to current Broadband and dial-up Internet services—at retail rates at or below the common price of premium dial-up Internet access, with a special rate of about half that for low income households.
- The initial service offering will be a symmetric One Megabit per second (1 Mbps) service, which is about fifty times as fast as a dial-up connection. It's nearly as fast as a typical DSL line for downloads, and is actually faster than most of today's broadband services when uploading data. Once we have the initial service deployed, we expect to offer higher tiered services up to several times that fast, and we will upgrade the network over time so that ever higher speeds are enabled as new technology becomes available.
- EarthLink supports Open Access to third-party Internet service retailers and "Net Neutrality." So, the project will provide opportunities for many local companies to resell broadband access service that they purchase at competitive wholesale rates. As the third broadband entrant in this market, we embrace competition as a way to make use of our network more attractive. And the same is true for "Net Neutrality." We view this as the best way to ensure that our platform is viewed as the most consumer and innovation friendly platform.

- Earthlink, after approval by the Philadelphia City Council, plans to break ground on a 15 square mile Proof of Concept area in April and be fully deployed by spring 2007.

This agreement catapults Philadelphia into a worldwide leadership position in technology and will enable officials to meet the needs of their residents as well as enhance the visitor, tourism and business climate of that great city. But, EarthLink is already taking the Philadelphia Story on the road! EarthLink has (or soon will) proposed that we UNwire municipalities—at our cost—across America, including:

- Anaheim, California;
- Milwaukee, Wisconsin;
- Portland, Oregon;
- Arlington, Virginia;
- Minneapolis, Minnesota;
- Long Beach, California;
- San Francisco, California;
- Honolulu, Hawaii.

Bringing Municipal WiFi to Rural America

We believe that the EarthLink approach of partnering private sector expertise and capital with municipalities should also be harnessed to expand broadband options in small cities and rural areas across America. EarthLink is developing a "Network Alliance" program with just this goal in mind.

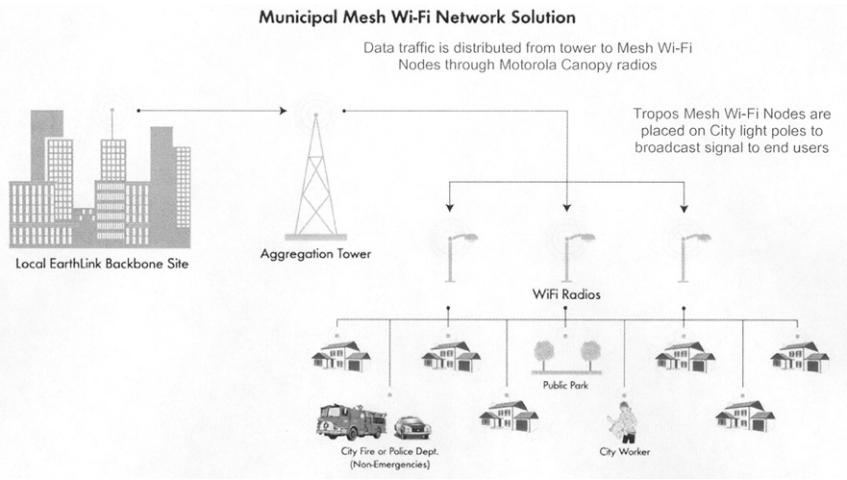
Local entrepreneurs know best the local consumer and business needs for broadband access and services. EarthLink's Network Alliance program will aid these local businesses in partnerships providing:

- EarthLink's technical expertise in network design, deployment and specifications;
- EarthLink's volume pricing for equipment and services—so even the smallest companies will get the best prices; and
- EarthLink's ordering, billing and other back-office services—so these local businesses can put full focus on building out networks and signing on customers.
- EarthLink's Network Alliance program is being finalized over the next several weeks, and we hope to soon begin beneficial partnerships with local entrepreneurs who share EarthLink's vision of broadband competition throughout America.

Municipal WiFi Networks—Technology Overview

Municipal Wireless service is a new use of WiFi technology (Short for *wireless fidelity*) that is already extremely widespread and proven. WiFi is based on a technical protocol that allows many users to share access to a network without blocking each other. Because of its robustness, WiFi has been a tremendous economic success, finding its way into millions of hands and homes. Because of this widespread adoption, volume pricing makes it far less expensive to build a new broadband service using WiFi than with any other technology. And because radio waves don't discriminate and the equipment is affordable, access to this technology can be consistently available to everyone. The low cost of this technology and its wireless mobility aspect enable WiFi-based broadband networks to reach new audiences not served by traditional fixed broadband Internet services. (A photograph of a WiFi antenna is attached to my testimony.)

To provide the Committee with some of the background of how the municipal wireless technology will work, the diagram below highlights the multiple technologies involved:



Building a robust wireless network is not a simple or intuitive exercise. The Municipal Wireless network is a relatively new idea and there are many possible approaches to building one. EarthLink won't claim to have the only formula for a successful network, and there are bad approaches as well as good ones. But, Municipal Wireless is a model that can work, and deliver cost-effective broadband service to consumers without a significant risk to municipalities or their taxpayers.

Consumer Security and Encryption

As WiFi HotSpots have proliferated over the past few years, the need for robust encryption and security protocols has become increasingly apparent. This is especially important in light of the rising rate of Identity Theft by more and more sophisticated means. Unfortunately, most WiFi HotSpots are not designed to use native security, and early efforts at defining encryption standards for WiFi networks resulted in poorly designed protocols which provided little protection and would have been useless in a public access network. There are, of course, several simple methods such as Virtual Private Networking that an Internet user can employ to keep their data well protected, but most users still don't feel the need to use them.

Fortunately, members of the IEEE and the WiFi Alliance have responded to these concerns by creating robust new standards for wireless network security, and the networks EarthLink builds will be designed around these options right from the start. The WPA and WPA2 standards that our networks enable will allow any user with the appropriate client software to surf the net with complete confidence in their security. And EarthLink will be, to the best of our knowledge, the first wireless Internet company to provide secure client software to all users for free—even users in public parks and community centers where we will charge no access fees.

Open Access and Federal Legislative Proposals

EarthLink has long recognized that consumers are not best served by exclusive-access Internet networks. We believe that consumers are best served by an Open Access model—where network owners offer fair, reasonable and non-discriminatory wholesale rates to others who seek to bring customers to that network. EarthLink's municipal networks will follow the letter and spirit of that commitment. Any qualifying ISP will get the same low wholesale rate, and we welcome them to bring consumers to our network. And, we welcome the competition that ensues—it will ultimately deliver the best service and experience to consumers.

In 1993 and in 1996, the Committee faced similar issues at the beginnings of the commercial wireless business.

When the FCC licensed only two cellular carriers in each market, wireless resale had to be mandated through regulation. But after this Committee enacted spectrum auctions and opened up additional spectrum for PCS service, we were able to see the third, fourth, and fifth wireless carriers enter the market. And as that happened, wireless resale went from something that had to be mandated to a service every facility-based carrier provides. Indeed, the FCC allowed the mandatory wireless resale rule to expire in November 2002.

The same will hold true for "Net Neutrality." It is undisputable that the reason the Internet has been a transformative engine for economic growth and innovation is that the Internet is an open communications platform. As Vint Cerf, the father of the Internet, told this Committee last week, the open Internet allowed companies like EarthLink, Google, Yahoo!, e-Bay, and Amazon to grow from an entrepreneur's dream to successful Internet businesses. Small companies and entrepreneurs can use the Internet to prove the worth of their ideas without having to convince a bureaucrat at a cable or telephone company of their economic merit—or having to pay a "success" fee to those network duopolists.

As a network investor and operator, EarthLink rejects the argument by the telephone and cable duopolists that networks must be closed and applications subject to a "success tax" in order to promote network investment. We embrace "Net Neutrality" because it is both consumer friendly and economically right. We will succeed by adding users and by providing our (and our wholesale customers') users better service, not by throttling web-based innovation and business models. When EarthLink and our local government partners expand the number of facilities-based networks providing Internet access, the marketplace can better police and ensure "Net Neutrality."

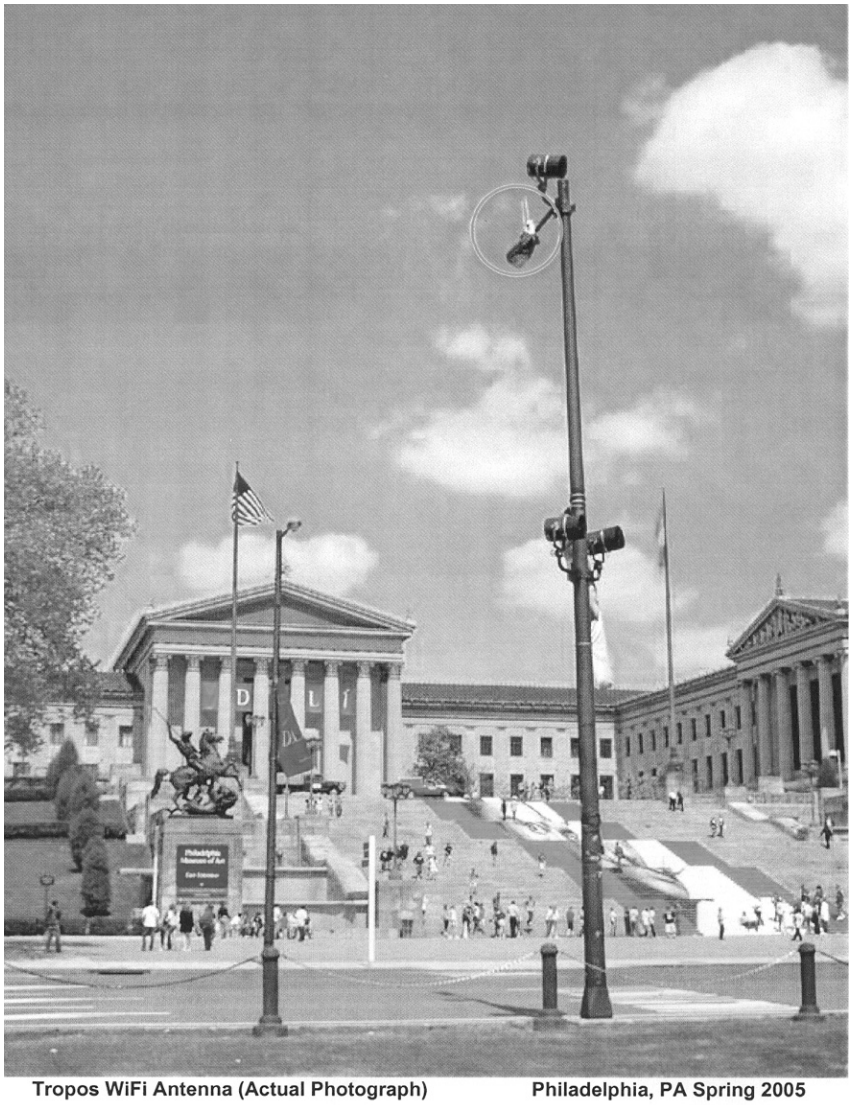
The Community Broadband Act, S. 1294, introduced by Senators Lautenberg and McCain appropriately recognizes the fact that local governments need the flexibility to develop the broadband solutions that work best for their citizens.

I recently testified before the Pennsylvania State Senate as they examined legislation that established a cut-off date for municipal broadband systems. Unfortunately, the "shot clock" approach taken by the Pennsylvania state legislature could have forced a variety of unintended consequences as local governments rushed to decide among the technical options before fully examining all approaches. This is but one practical example of the potential problems with a one-size-fits-all approach taken at the state level to dictate solutions to local officials.

This Committee proved a fundamental lesson more than a decade ago when you examined the beginnings of the commercial wireless industry—namely, that encouraging competitive alternatives is not only possible, but it is also the best answer to the most difficult policy questions. As such, I respectfully suggest that this Committee take all steps it can to encourage the growth of Municipal Wireless networks.

Conclusion

Thank you for your time today and for inviting me to share our views as this Committee undertakes its comprehensive review of our Nation's telecommunications laws and policies. I look forward to answering any questions.



Tropos WiFi Antenna (Actual Photograph) Philadelphia, PA Spring 2005

The CHAIRMAN. Thank you. Our last witness is Dianah Neff, Chief Information Officer of the City of Philadelphia, Philadelphia, Pennsylvania.

STATEMENT OF DIANAH L. NEFF, CHIEF INFORMATION OFFICER, CITY OF PHILADELPHIA

Ms. NEFF. Thank you, Chairman Stevens and Members of the Committee. I am pleased to appear before you today in my capacity as the Chief Information Officer for the City of Philadelphia and ex-officio Board Member for Wireless Philadelphia, a nonprofit cor-

poration that was established to provide access to affordable high-speed broadband Internet throughout the city of Philadelphia.

I want to bring to your attention the municipally driven broadband effort and some of the historical perspectives. I also will describe the fully open and competitive environment in which we invited the private sector to bid to provide the kinds of services that the current incumbents have failed to offer at an affordable rate, services that will be financed at no cost to city taxpayers. A century ago, municipal leaders across the country knew that without electricity, their communities would be left behind as our Nation moved from an agrarian to an industrial economy.

Today, Philadelphia's mayor, John Street, and many others have recognized that without affordable high-speed Internet access, our communities and less fortunate residents will be left behind as the world moves from an industrial to an information-driven economy.

Wireless Philadelphia's mission is to help citizens at every economic and educational level connect to the opportunities through the use of broadband technology. Within the next year, we will have worked with our private sector partners to deploy a wireless mesh network providing low-cost, high-speed mobile Internet access throughout Philadelphia's 135 square miles. In doing so, we will help to overcome the digital divide for our low-income and disadvantaged households, promote inclusive economic development and otherwise improve the quality of life for all Philadelphians.

No doubt that you've heard the private sector marketplace could have met our needs, and thus, we as city leaders should have deferred to their expertise and given them just a little more time. We have waited for 9 years in the State of Pennsylvania, but we simply could not afford to wait any longer. We needed to foster private sector action. Broadband access is not universally available. And where it is, the incumbents are offering DSL services between $25 and $30 a month plus an enrollment fee, a cancellation fee, a cost that citizens, have to have for computers and other equipment. In low-income and disadvantaged neighborhoods in Philadelphia, only 10 to 25 percent of our families have access to the Internet in their homes. Less than 30 percent of those households have broadband service. By contrast, Wireless Philadelphia's initiative will enable qualified low-income households to receive access with as little as $10 per month. And for those most needy citizens, we will provide access to computers and have programs to get them started including 10,000 free computers and training to be provided over the 5 years.

Just as municipal electrical systems proved critical to making access to electric services in the 20th century, municipal networks can make broadband access universal in the 21st century for the economic and educational well-being of all of our citizens.

For too long, the residents of Philadelphia have waited for access to arrive, and we are not alone. Despite this situation, a handful of incumbents have attempted to stop further local government deploying of community broadband services across the country. As you are no doubt aware, Wireless Philadelphia faced opposition from incumbent providers in Pennsylvania. They worked in the legislature to block municipal governments from providing the very services that they had declined to provide. Mayor Street and the

city leaders successfully worked to assure Philadelphia retained the right to protect the interests of all of our residents and determine our own future, but other rural, suburban, and urban communities in Pennsylvania cannot do the same.

In the spring of 2005, Wireless Philadelphia issued a Request for Proposal seeking proposals from qualified respondents for a citywide wireless network and a communications system. After evaluating a dozen proposals, we selected EarthLink to finance, build and manage the wireless network without any city taxpayer dollars. In addition, EarthLink will provide Wireless Philadelphia with revenue-sharing fees to support the Wireless Philadelphia nonprofit effort in overcoming the digital divide. EarthLink will work with Motorola and Tropos Networks to build an open access, a wireless mesh technology that will allow competing Internet service providers to use that infrastructure competition.

Thus, we have found a way to work with leading private-sector companies to bring affordable wireless Internet access to every business and into every home in our city. And to assure that the greatest potential public benefits are derived for our low-income residents, Wireless Philadelphia will work on a comprehensive digital inclusion program. This program will provide affordable hardware, self-help content, training and programs to maximize the potential of technology to help low-income people improve their lives and enter the economic mainstream. We have already witnessed what this type of technology initiative can do for our city. New Foreign Delegation Investment Tours have added Philadelphia to their list because of our commitment to having a broadband telecommunication access universally across the city.

We see small businesses growing in the revitalization areas that we have already connected through our pilot program like in our Norris Square neighborhood which is predominantly Hispanic where an individual investor is converting a former ice warehouse into a gallery and is offering broadband wireless access to successfully attract tenants because they were in our pilot area.

I'd also like to make this a little more personal by telling you a story of the Cox family in Philadelphia and the power of the Internet to improve their lives. Through a wireless Internet pilot partnership with the People's Emergency Center, United Way and One Economy Corporation, this family of three generations of women sharing a row house in Philadelphia now get high-speed Internet access for $10 a month. It has changed their lives forever. Taah who was an unfocused third grader, whose father was in jail, and her mother, Maya, was diagnosed with needing a kidney transplant, but she had no means of weighing her options. Her mother, Theodora Cox, at 64, faced the additional uncertainty of retirement as the sole breadwinner for that household. Theodora was given a chance to purchase a computer for $120, take an 8-week training course and get wireless broadband access for $10 a month. How did something so basic, which most of us take for granted, change their lives? Maya and her mother were able to research kidney diseases and correspond with patients and doctors worldwide. Theodora now uses the Internet to sell her line of candles, bringing income into the household. And Taah, who has participated in our digital connectors program for young teens, emerged as a technical director

for her third-grade class. She is now energized and doing well in school.

We have won our battle in Philadelphia, but other communities need to help and to offer affordable broadband to all of their citizens. Therefore, as you rewrite the Telecom Act of 1996, we believe it is vital that you include bill S. 1294, the Community Broadband Act, that would break down the legal barriers to entry and that will keep cities and towns across Pennsylvania offering the kinds of service that we will be able to offer in Philadelphia.

We cannot deny citizens access to the electricity of today. And we know that without affordable high-speed broadband access, communities across the country will be left behind as the world moves into the industrial information-driven economy. We know that without new technology, we cannot achieve our digital inclusion objectives, and we seek to bring all of our citizens in every economic and educational level into the Internet age. We know that local government leadership can work creatively with the private sector to make universal access happen, and we know that Congress can help us to assure our ability to achieve these goals. Thank you for your attention.

[The prepared statement of Ms. Neff follows:]

PREPARED STATEMENT OF DIANAH L. NEFF, CHIEF INFORMATION OFFICER, CITY OF PHILADELPHIA

Chairman Stevens, Co-Chairman Inouye, and Members of the Committee. I am pleased to appear before you today in my capacity as Chief Information Officer for the City of Philadelphia and as ex officio Board Member of Wireless Philadelphia, a 501(c)(3) nonprofit corporation established to revitalize our neighborhoods, provide opportunity to our residents, and strengthen our economy by enabling access to affordable, high-speed wireless Internet throughout the City.

A century ago, municipal leaders across the country knew that without electricity their communities would be left behind as our Nation moved from an agrarian to an industrial country. Today, Philadelphia Mayor John Street and many others across the Nation have recognized that without affordable high-speed broadband access our communities will be left behind as the world moves from an industrial to an information-driven economy. And we are painfully aware that without universal access to this new technology will leave people behind and cannot achieve our digital inclusion objectives as we seek to bring citizens at every economic and educational level into the Internet age.

Wireless Philadelphia's mission is to help citizens, businesses, schools, and community organizations connect to the world through the use of wireless technology. In doing so, we will help to overcome the digital divide for low-income and disadvantaged households, promote inclusive economic development, and otherwise to improve the quality of life for all Philadelphians. Just through the deployment of pilot projects, we already have demonstrated that ability to help residents, generate new small businesses, and expand tourism opportunities. Within the next year or so, we will have deployed a wireless mesh network providing low-cost high-speed Internet access throughout the city's 135 square miles of businesses and homes. And we will have made a great leap forward in meeting our goals.

No doubt you have heard that the private sector could have met our needs and those of other communities, and thus that we as city leaders should have deferred to their expertise and given them just a little more time. But we simply could not afford to wait any longer, and we needed to motivate private sector action. In our low-income and disadvantaged neighborhoods in Philadelphia only 10 to 25 percent of our families have access to the Internet, with 72 percent of those households using dial-up access. In the most recent survey conducted by the Philadelphia School District, only 58 percent of all households with children had access to the Internet in the home and only 64 percent had computers. Not surprisingly, we saw that our low-income children were being left further and further behind as technology advanced. The lack of Internet access has hurt our children at every step of the education process where those of greater means are advantaged—from being

able to conduct research in the home to applying for college. Moreover, with parents forced to take their children to a library to get access to the most basic technology, they often cannot do so as needed and then have to further sacrifice spending time with their families. To meet this challenge head on, Wireless Philadelphia's goal is to provide citywide low-cost access somewhere around $16–$20 per month and to provide 10,000 free computers with training over five years.

Just as we have seen what harm the lack of broadband access can cause, we also have seen first-hand what good new technology can do for our city. As a result of Mayor Street's efforts to promote the availability of enhanced technology, foreign delegation investment tours now regularly stop in Philadelphia. For example, delegations from both China and South Korea recently added Philadelphia to their schedules, noting the wireless initiative. In addition, we continue to attract more tourists because our wireless program has created worldwide attention. I personally have spoken to groups from 15 countries, articles about our wireless program have appeared in 25 countries, and National Geographic Traveler magazine selected Philadelphia as one of the "next great cities," in part because of our wireless program. Finally, we continue to see small businesses flourish in areas that we already have connected. In the Norris Square neighborhood, for example, an individual investor purchased a former ice warehouse, which he is now converting into a gallery and twelve artist studios. Because the building is in one of our pilot areas, he has been able to offer all twelve artists wireless broadband access, all of whom signed up for the service. In short, we are seeing the benefits of wireless broadband throughout our city.

Before describing in greater detail our plans to further connect our citizens to the world, I want to put our efforts in historical perspective. I also want to describe the rigorous, fully open, highly competitive process by which we invited the private sector to bid to provide the kinds of services that the existing incumbents had failed to offer. And I want to talk about what the Committee can do to help our residents and those in communities across the country to compete in the increasingly information-driven world in which we live.

Historical Context. A little over a century ago, electricity was available to only a small fraction of the U.S. population, principally businesses in major cities and individuals living in affluent urban communities. While private power companies gradually built out networks within city limits during the late 19th century and early 20th century, they generally ignored customers outside urban markets, especially in rural America, as well as in lower income and hard-to-wire urban locations. During the early 1900s, for example, nine out of ten rural homes had no electric service.

Community leaders quickly realized that electricity was not a luxury—it represented a technological advancement that would be fundamental to the survival of their communities, a crucial component of their economic development, public safety, and quality of life. Rural and small town markets, for example, were missing out on the jobs dependent on electricity. Agricultural areas also were unable to benefit from the increased productivity associated with electricity, including electric barn machinery, grain crushers, water pumps, and crop processing. In addition, rural demands for the newest commodities in American life—radios, refrigerators, washing machines, hot water heaters, and household appliances—could not develop without access to affordable electricity.

Even though most for-profit companies were not interested in extending service to rural or low-income areas, they still resisted allowing municipalities to enter the market. In fact, they vigorously fought to prohibit entry by public entities. And they used many of the same arguments that municipal leaders hear today with regard to broadband Internet access.

Private utilities argued that municipalities lacked the expertise to offer something as complex as electricity. They posited that electricity was a "natural monopoly" and allowing municipalities into the market would create unwarranted competition. Some private entities went further, engaging in anticompetitive practices, such as denial of transmission access and predatory pricing, or worked actively to create hostile political environments at the local level.

Small and rural community leaders recognized that their economic survival and the health and welfare of their citizens depended on wiring their communities. They understood that it would take both private and public investment to bring electricity to all Americans. Fortunately, for our Nation as a whole, those community leaders prevailed. By 1913, there were nearly 2,000 municipally owned systems nationwide. Over the next several decades, municipally-created utilities would expand their reach and provide millions of citizens with electricity, opening up manufacturing and services to these areas and giving rural residents the conveniences already taken for granted in American cities for almost 50 years. Through municipally driv-

en efforts to expand access to electricity, small towns and rural communities finally had the technology necessary to take advantage of the modern world.

Just as municipal electric systems proved critical to making access to electric service universal in the 20th century, municipal networks can make broadband access universal in the 21st century for the economic and educational well being of all residents—as long as they have the freedom and opportunity to do so. For too long, the residents of Philadelphia have waited for that access to arrive. We are not alone.

In just the past few years, the United States has fallen to 16th among industrialized nations in broadband penetration. In many urban and rural areas of the United States, small businesses and individuals with low incomes continue to have difficulty obtaining reasonably priced broadband services. Many countries outpacing us, including Canada, Japan, and South Korea, have successfully combined municipal systems with privately deployed networks. Despite this situation, a handful of incumbent providers have attempted to stop further local government deployment of community broadband services across the country.

As you no doubt are aware, we faced vigorous opposition from incumbent providers in Pennsylvania. They worked in the legislature to block municipal governments from providing the very services they had refused to provide. Mayor Street and other city leaders successfully worked to assure that Philadelphia retained the right to protect the interests of all our residents and determine our own future, but other rural, suburban, and urban communities in Pennsylvania cannot do the same.

Private-Public Partnership. In the spring of 2005, Wireless Philadelphia issued an RFP seeking proposals from qualified respondents for a "turnkey solution" for a citywide wireless network and communications system. Among other things, the proposals had to include network infrastructure procurement, architecture and design services, installation services, telecommunications provisioning and services, network monitoring and management services, customer service and technical support services, software hosting services, and program and project management services. In July, after evaluating a dozen proposals, we selected AT&T, Hewlett-Packard, and EarthLink as potential providers, and we asked them to further develop their vision for helping us deploy this advanced network. In the end, we selected EarthLink, which will finance, build, and manage the wireless network *without any city or taxpayer dollars.* In addition, EarthLink will provide Wireless Philadelphia with revenue-sharing fees to support the Wireless Philadelphia Non-Profit Corporation.

Working with Motorola and Tropos Networks, which will provide the wireless mesh technology for the entire network, EarthLink will first build out a 15-square-mile proof-of-concept area. After an initial testing phase, the network will be expanded across the city. The network will be "open access" that allows competing service providers to use the infrastructure. Free Internet access will be provided in some parks and public spaces. The network also will provide T–1 connectivity for small business customers, and it will enable daily and weekly access for visitors.

In short, we have found a way to work with leading private-sector companies to bring affordable wireless Internet access to every business and into every home in our city.

In addition, to assure that the greatest possible public benefits are derived by our low-income residents, we are working on a comprehensive "digital inclusion" program with Civitium, Intel, and One Economy Corporation, a national nonprofit sponsored by various technology companies, telecommunications providers, and private foundations. This program will include affordable hardware, self-help content, and training and use programs to maximize the potential of technology to help low-income people improve their lives and enter the economic mainstream.

Congressional Action Needed. We won our battle in Pennsylvania, but other communities need your help to offer something comparable. Therefore, as you rewrite the Telecommunications Act of 1996, we believe it is vital that you include S. 1294, the proposed Community Broadband Act sponsored by Senators Lautenberg and McCain and cosponsored by Senators Coleman, Feingold, Graham, and Kerry. The bill is important for three reasons. First, it will discourage other states from enacting the kinds of barriers to entry that now will keep cities and towns across Pennsylvania from offering the kinds of services we will be offering in Philadelphia. Second, it will encourage the dozen or so states that created roadblocks to progress to reconsider their earlier decisions to impose limits on what local governments may offer. And, finally, your action will signal to community leaders across the country that you understand what needs to be done to help them compete globally and serve the fundamental needs of their communities.

As you can appreciate, municipal governments face a host of challenges today, from improving educational opportunities to enhancing economic development, deliv-

ering essential government services more effectively to providing first responder assistance in response to a natural disaster or a terrorist attack. Let me put in perspective what we face and how we can meet the challenges ahead if we are given the freedom to explore new ways of delivering services for our constituents.

I already mentioned the powerful impact that our pilot initiatives had in growing small businesses in Philadelphia, and attracting the attention of international investors and media. Let me make it more personal by telling you a little bit about the Cox family in Philadelphia and the power of the Internet to improve their lives. Their story was featured last year in *The Washington Post.* Through a wireless Internet pilot project partnership with People's Emergency Center, the United Way of Southeastern Pennsylvania, and One Economy Corporation, this family of three generations of women sharing a single row house now gets high-speed Internet access for $10 per month. It has changed their lives forever.

The youngest, Taah, was an unfocused third-grader whose father was in jail. Her mother, Maya, who gave birth to her at age 13, was told at the time that she probably needed a kidney transplant, but she had no means of weighing her options. And her mother, Theodora Cox, at 64, faced the added uncertainty of retirement.

Through the People's Emergency Center (PEC), a nonprofit community development and service agency, Theodora was given the chance to purchase a computer for $120, take an eight-week training course, and get wireless broadband access for $10 per month. How did something so basic, which most of us take for granted, change their lives?

Maya and her mother were able to research kidney diseases and correspond with patients and doctors in the United States and the United Kingdom. Theodora now uses the Internet to help sell a line of candles to people in Philadelphia and across the country. And little Taah, who participated in an associated youth "digital connector" program, emerged as "the technical director" in her third grade class, and is now energized and thriving in school. In the words of Gloria Guard, President of PEC, which provides wireless broadband access to the Cox family and over 100 homes in their neighborhood, "making technology available is like a pebble in a pond." We want to create many more such ripples, and we want them to grow to waves over time.

But we cannot get there without the Wireless Philadelphia program we have put in place. Too many of our families cannot afford what the incumbent providers offer, and they should not be left behind because our city lacks true competitive alternatives. For example, I recently saw a Verizon advertisement, offering DSL Internet service, for $21.95 per month and increasing to $29.95 per month starting in the fourth month, for a comparable speed of service to what will be offered through Earthlink in Wireless Philadelphia for as little as $10 per month. And then of course there is an added cancellation fee for subscribers who terminate their service within a twelve-month period.

By contrast, Wireless Philadelphia service will include outdoor wireless as well as indoor service. And we will provide it for much less cost. And for those needy citizens without access to computers, we have programs in place to get them started. Like earlier generations of citizens, they are not going to be denied access to the electricity of their day.

In closing, let me end where I began. We know that without affordable high-speed broadband access, communities across the country will be left behind as the world moves from an industrial to an information-driven economy. We know that without new technology we cannot achieve our digital inclusion objectives, as we seek to bring all of our citizens at every economic and educational level into the Internet age. We know that local government leadership can work creatively with the private sector to make universal access happen. And we know that Congress can help to assure our ability to achieve these vital goals. Please let us work together to achieve them.

Thank you for your consideration of our views.

The CHAIRMAN. Thank you very much. I don't know who's running the time. Let's run 10 minutes on each one of us for the whole panel, and then we'll go back and see if we have questions later. Is that all right? Did you have an opening statement you want to make?

Senator ENSIGN. I'll do that when I have questions.

The CHAIRMAN. Well, Ms. Neff, I find that very interesting. I come from a state that's one-fifth the size of the United States. Not many people live in the cities, about half of them. What do you do

in Pennsylvania with the people that don't live in cities? This municipal service that's free of taxes that will still receive Universal Service assistance won't pay Federal taxes, won't pay city taxes. How can we fit that into our national system?

Ms. NEFF. Actually, EarthLink will pay city taxes, will pay Federal taxes as a corporation, and they would ride a revenue-sharing model with Wireless Philadelphia to help us then do the digital inclusion as, you know, the digital divide is local, and our neighborhood revitalizations are local, and we've looked to a model where EarthLink and Municipal Networks division will provide a wholesale access to other companies that do pay taxes and provide services.

The CHAIRMAN. Is that right, Mr. Berryman, you think you can provide that service to the whole Nation?

Mr. BERRYMAN. We'd like the opportunity to try, Senator.

The CHAIRMAN. I don't understand. You're providing services through a 501(c)(3) corporation, aren't you?

Mr. BERRYMAN. They're our partner.

The CHAIRMAN. Your partner, you provide them the services, right?

Mr. BERRYMAN. No, we provide the citizens of Philadelphia the service.

The CHAIRMAN. But you're contributing to this 501(c)(3) corporation as part of the cost, right?

Mr. BERRYMAN. That's correct.

The CHAIRMAN. But you're still only charging $10 a month?

Mr. BERRYMAN. Only for the digital inclusion which is a limited number of people in the city of Philadelphia. The rest will pay a market rate that EarthLink will be a retail seller for as well as others that will come onto the network as wholesalers.

The CHAIRMAN. Will those people be outside of the city or inside the city?

Mr. BERRYMAN. They'll be within, at least to start, within the 135 square miles of the city.

The CHAIRMAN. And do you believe you're eligible for Universal Service funding?

Mr. BERRYMAN. Do we believe we're eligible for it? I don't think so.

The CHAIRMAN. You plan to claim it, right? Do you plan to seek Universal Service assistance?

Mr. BERRYMAN. No.

The CHAIRMAN. What do the rest of you think about the concept of municipalities offering broadband services under these circumstances? Have you faced the problem in your city, your states? Mr. Boone, you said you did. Do you have a similar situation with regard to Philadelphia?

Mr. BOONE. At this point, what we're facing, again, is primarily against a municipality directly, and the municipality itself is the entity that's providing the service, so it isn't through any other form of partnership with any other entity. That municipality has clearly said that it does not intend to serve the rural areas. And yes, they are receiving Universal Service.

The CHAIRMAN. I'm not opposed to such circumstances. In my state, the state owns the ferries. In my state, the state owns the

railroad because no one else would operate either one. But in your situation, Mr. Berryman, weren't there competitors offering service within the city of Philadelphia?

Mr. BERRYMAN. There are. There is the local phone company, Verizon, and the cable company, Comcast. They're offering those services today.

The CHAIRMAN. Thank you. My staff points out that no one's getting Universal Service yet on broadband, but we believe it will come. I apologize for not being clear. Any of the rest of you have any comments about this system? You'd prefer to stay out of the fight, right? All right.

Mr. BOONE. Could I answer your question?

The CHAIRMAN. Yes, sir.

Mr. BOONE. Just as I listened to the different comments and about recognizing how this is kind of a cable franchise, I guess in Iowa, at least a cable franchise is a nonexclusive, and I guess one of the difficult things that I have with some of the partnership opportunities that may exist between city and private enterprise would be that once that partnership has begun, in effect, the winner has been chosen. It's difficult unless there's a true open access network that the municipal government is offering, they really have chosen who the private winner will be, and I just think that makes it awfully difficult again, especially when I think about the very small rural areas that I serve.

The CHAIRMAN. Pardon me. Excuse me. I'm told Senator Ensign has to go to the floor.

Senator ENSIGN. Yes.

The CHAIRMAN. I would yield to you, my friend.

STATEMENT OF HON. JOHN ENSIGN, U.S. SENATOR FROM NEVADA

Senator ENSIGN. Would you mind? I have to go to the floor to manage the point of order. If you wouldn't mind, I just have a few questions, and I appreciate the Chair's indulgence. I apologize Senators, unfortunately I have 22 things going at the same time today. The issues are, I believe, very resolvable. I have drafted legislation that I'm sure many of you are familiar with it that obviously sides more with encouraging private sector investment. That's my bent. Whenever possible, I don't like to see government competing with the private sector. I think that the private sector, especially where technology is concerned, is much more innovative and can respond to changes in a faster way. Philadelphia has a little different situation where they've contracted with a private company and a little different than what Mr. Boone is talking about, and I don't have any problem with an agreement like that as long as they don't, Mr. Berryman, give you an unfair advantage over other private companies. And that's where I think the balance has to come in. Nobody else is doing it, if you know, nobody else, the ferries, the railroads, infrastructure, if nobody else is out there, then I think that it's fine for local governments to do it. But if they're willing—the balance I think, needs to come in if there are willing providers out there willing to have competition that will provide that service in a competitive model to the consumer, then we shouldn't have the local government be able to give themselves an advantage in a situation

where there's taxes, regulation, whatever it is just because they may want to control it.

Now, the local governments, if they want to, should be able to compete, but it should be on a right-of-first refusal. In other words, if somebody else wants to come in, you know, we've heard a lot of this, and Michael Dell is one of the people that I talked to about this, and he made a very good point that when the power lines were taken across the country, they were basically mandated because they would skip the small communities because it wouldn't be beneficial, for them to do that. Well, that makes a heck of a lot of sense that in a case like this, to be able to build the networks out, that we have to allow municipalities to do this, but if there's a private sector out there, that's the point. I think we're the balance that we need to strike.

The Chairman certainly has an interest in this, and we want to be able to work as we go forward to get broadband to our citizens. Because if we aren't getting broadband to our citizens, then we're going to fall farther and farther behind in the information age. Right now, we are falling farther and farther behind. In some countries the standard is 100 megabits per second. In Sweden, I think it's 1,000 megabits per second. We have the capabilities, the technology's there. I believe we have to get government out of the way in many cases and in other places, it has to be in a cooperative-type of a situation. So, with that as a general opening statement, maybe we could just explore these issues with one or two quick questions. Mr. Sahr, you're with the PUC, correct, up in South Dakota?

Mr. SAHR. Yes, Senator.

Senator ENSIGN. Was that what I read? So, you're not exactly a private sector kind of a guy, but from what I understood, that you favored the private sector being able to compete. Could you give me your comments on that?

Mr. SAHR. Well, yes, and I agree with your assessment. If you're in a community that completely lacks broadband, I think you should look at every single option that's out there, and that could include public ownership, and I tried to outline that in my comments. The concerns that I have, though, when you go beyond those situations is situations like you've described, Senator, where maybe some competition is coming in there and having some advantages or even if you go a step further without some sort of market failure, you could be displacing private investment. And when I say private, it could be cooperative investment, it could be—it doesn't necessarily have to be investment that's strictly in large publicly owned companies. And as you're trying to operate networks in high-cost areas like in my state and throughout the country, if you start carving out these larger markets and for ours, you know, what could be a small market here is a large market for us, you start carving out these individual markets, not only are you going to have an effect within that particular market, but also, these are companies that are operating over a wider region, it's going to upset their entire cost structure, and I think it could end up being detrimental to consumers that are—especially the ones who are in rural areas. Then suddenly, the provider that's serving them is losing market share in larger areas. And I hesitate to call

it this, but you get a little bit of, I guess what I call, cherry picking or if I borrow a term from other telecommunications analysis, you have people coming in picking up the good markets and not serving the rural areas, and that's going to have an——

Senator ENSIGN. Just——

Mr. SAHR.—unwanted effect of increasing rural areas.

Senator ENSIGN. Let me see if I understand this, what you're saying, because it's actually something I hadn't thought about before. I think the point you're making is, let's say for instance, in North Dakota, I'm a company that wants to go into an area of North Dakota, and there are seven small towns that I want to take service to because I've penciled it out, and if I can get all seven, it would make financial sense to provide them service if I could get all seven. Two of them have decided to do their own municipal networks, whether they partner with somebody, or they do it on their own, that may prevent the rest of the five from getting these new services. Is that what you're saying?

Mr. SAHR. And that would be my concern. If you look at the overall expenditures, whether it be private or else be public through various funding sources including Universal Service, I mean I think suddenly, now we're going to be faced with a situation where people in those unserved areas or that are losing their better markets may either need more Universal Service support, or they may end up having to raise rates to the point where it's not possible for consumers to be able to afford the service. So, I think the danger of coming in, you know, in places where there are not market failures, I think go well beyond just the boundaries of that particular municipality to even wider service territory situations.

Senator ENSIGN. Mr. Boone, what could Congress do to level the playing field or if there are local rules that give government an unfair advantage, what can we do up here from a legislative standpoint?

Mr. BOONE. I think that if the move is to allow municipal networks to be built, if that is part of the—if that's a given somehow, which I don't necessarily think it has to be, but if it is, then I guess I think that part of it comes down to the voters and to the people of those communities, do they really understand what the city is doing and what they are getting into, and I guess some questions that we've looked at in Iowa as part of some legislation, you know, to ask the question, how much will this cost.

Senator ENSIGN. No, but what could we—because we have to focus on what we can do, okay, what can we do to make sure the cities aren't unfairly competing with you as a company?

Mr. BOONE. I think first of all, again, it gets back to the issue of taxes, it gets back to that level playing field that I spoke of in my testimony, it comes down to the areas served, again, that urban rural aspect is real. As I was driving to the airport, the 120-mile drive, I had to get to the airport to get here, every 10–15 miles, I'd come across a small community that had 1,000 or 2,000 people, and then there would be one or two farmsteads between each of those communities per mile. That's a tremendous geographic imbalance that, again, I think that we have to be able to serve. So I think providing some protections in there that say these rural customers have every right to be served as do the communities, and

I am not even speaking to the large, large cities that I even have a hard time really comprehending because of where I'm from. It's a difficult question, and Universal Service is a key part of that, providing, as I say, RUS funding capabilities for private entities. And then again, my last point was again to somewhat take that unfair anti-competitive balance to make sure that that stays fair.

Senator ENSIGN. Mr. Chairman, I've used enough time. I really do have to get to the floor, and I apologize. I wanted to stay for this. I think it's a very important hearing, and I appreciate the Chairman, first of all, allowing me to speak out of turn, but also for the emphasis and the fairness with which you're holding these hearings and the completeness of the hearing process that you've brought. You're attacking all of the difficult issues.

I think you've balanced the panel here. You're getting all of the different views because it's such a complex area of law, it's going to take everybody working together and listening, and as you know, as the Chairman, to sit through all of these hearings and sit through all the testimony, to really get into these issues. I applaud you for that, and I look forward to continuing to participate as we go forward in this process. So, thank you all very much.

The CHAIRMAN. Well, thank you very much. Senator Lautenberg.

Senator LAUTENBERG. Yes, for our colleague who's leaving the room, he said that he commends you for sitting through and so forth, those are the rewards of chairmanship, and I'd like to try them.

In any event, thank you all for appearing here, and Mr. Chairman, on the serious side, it is a very interesting panel. The mission is, at least purportedly, and I don't mean to be cynical, is to get this service to as many people as possible. And I come out of the private sector and the computer business. Three of us started a company over 50 years ago. It's called ADP, Automatic Data Processing. Today, that company that the three of us, poor kids from Paterson, New Jersey, fathers who worked in the silk mills there, now has 40,000 employees and is in 26 countries, and there are days when I wish I was still back there, but the reward here is psychic, it's not financial certainly.

One of the things that I sense here, and help me through this, and I think Senator Ensign was talking about somewhat, and that is how do you deal with areas that have access to a wireless connection as opposed to those that are still primarily on the wire side, there's a distinct competitive advantage there, and Mr. Boone, I've listened carefully to what you said and heard you talk about what can happen. In a way, it sounds if you're too good because if it's then decided that the municipalities are going to take over, you've got an infrastructure there that has some value, and you're also the marketing disadvantage, distinct disadvantage.

So, what works in Philadelphia where you have density, access, physical access to people, and I marvel at your success there, Ms. Neff and also Mr. Berryman, now, does that apply to the more rural areas? Aren't there differences in terms of investment and who provides the investment? When you talk about long distances, and Alaska, I think, probably has that problem or that opportunity almost more than any other state, and that is that people are so remote in some of these beautiful, beautiful places. I love the State

of Alaska, but the cost for getting that communication there and the obligation, they're almost directly in opposition. And the fact is that it's more needed there because of the distances that you have to go through and the physical obstacles to getting to these places. And yet, the cost, of course, is reflected, so Ms. Neff, don't you think that the density of Philadelphia, the urban center, had a major advantage in terms of being able to put in the system, and I asked for the comments of Mr. Boone in particular because he focused on the rural side of things. Aren't they essentially two different problems with also two greatly different costs required for getting these programs into place, getting broadband into place?

Ms. NEFF. Well, I believe that affordability is the key whether it's rural or a dense urban community like Philadelphia. We still have a significant digital divide that needs to be overcome, and whether that divide is at the cost level or it's by expanse, it's affordability. You could probably have broadband coverage in rural communities, but at what cost? And we have a technology, and we have private sector companies that can have a different return on investment model that makes it doable, but for communities like Scottsburg, Indiana, that you mentioned, where they were losing the mainstay of their economic support because companies needed that high-speed broadband access to stay competitive, to be a part of a supply chain, then they needed to step in, and that's what we need. We need the capability to have that flexibility in communities to determine the local communities that have to serve the needs of their population to have some impact on how their communities can survive. That's why we elect our elected officials to work on those decisions. And we believe in competition, and that's why we chose our wholesale model in Philadelphia where we'll have multiple competitive services. Being served by two monopolies virtually was not meeting the needs of our communities and that through the competition, through, in our case, a private sector wholesale model, which worked for Philadelphia because of the needs of our dense urban environment. A large percentage of our population, a third of our population is not served today, actually, greater than a third of our population. When we went out and met with the community and talked to them, cost 76 percent of the time was the primary reason that they stated that they didn't have access to the Internet, then you need to work within your community. And so, I said we need to craft policies that are flexible that allow the rural communities, if there are no providers, to work with providers that are interested in serving those——

Senator LAUTENBERG. Right.

Ms. NEFF.—communities and give the flexibility——

Senator LAUTENBERG. Yes.

Ms. NEFF.—to meet the needs of our community.

Senator LAUTENBERG. But if you're the doctor, I think the patient is quite different in cases. Mr. Boone, how do you see it, I mean the fact that Philadelphia had this arrangement and able to be an inviting marketplace to want to get to? What do you see when you look out at rural Iowa or Indiana or any other place in the country?

Mr. BOONE. Well, again, in rural Iowa, we're a provider of broadband service and have been since the year 2000, well before the municipality chose to build their network and offer broadband.

As a representative from CTIA mentioned, there are wireless carriers offering broadband. So, there's a competitive mix already there. There continue to be spectrum options being—that are going to happen in the future which means there'll be more potential competitors. And I guess, clearly, density makes a difference, and I'm not—so, it's hard for me to go and look at the Philadelphia situation and really understand that. But in Iowa, in northwest Iowa where I am from, there is competition. There are many providers of broadband service.

Senator LAUTENBERG. That offered wireless?

Mr. BOONE. Offered wireless through a local telephone company or through a cable company, many different ways that broadband is offered. But ultimately, a question comes down to, how do you define broadband. What is the bandwidth that is required for it to be called broadband? What we may have called broadband 3–4–5 years ago is maybe not so much what we call it today. What will it look like 5 years from now, and how will that technology continue to evolve and develop?

Senator LAUTENBERG. Yes, but you don't have the advantage of knowing, but you make business decisions about what you can invest and how you can recover your investment, and does it hold the profit opportunity for you unless you share it with the municipality that has an advantage. I think, that you—the Chairman asked a questions about 501(c)(3), and Mr. Berryman, you responded by just saying—well, obviously, there is that kind of provision that helps you provide the infrastructure that gets you to the profitable side of the marketplace. Is that not true?

Mr. BERRYMAN. No, there's no infrastructure that the city provides that helps us get profitable.

Senator LAUTENBERG. None, because——

Mr. BERRYMAN. We actually—there's no exclusivity, no bonds, no tax-free issues. It's completely our risk at our network.

Senator LAUTENBERG. Right.

Mr. BERRYMAN. What we're doing is we're contributing to the 501(c) so that they can serve the digital inclusion customers.

Senator LAUTENBERG. Right, but are they also your competitors at the same time?

Mr. BERRYMAN. No.

Senator LAUTENBERG. No, so it's a divided marketplace?

Mr. BERRYMAN. Our competitors will be wholesalers on our network. They'll be people buying wholesale from the network and selling it at what they can sell it for on the market.

The CHAIRMAN. No, I think he means is there any other entity that's competing with you and providing service in Philadelphia?

Mr. BERRYMAN. Yes, they'll be many. We've signed up multiple wholesalers to get on the network and sell wireless broadband in retail to the city—to the residents of the city.

Ms. NEFF. And the agreement with EarthLink is not exclusive. They have rights to 4,000 poles. The city owns 125,000 light standards. And so, what we're looking for is an equal level playing field so that if somebody else wanted to come in and build another infrastructure, they could do so, but they would have to meet the universal standards of covering the entire city. And so, we're looking at that equality, equitableness across people that have interest in

our city to come in. And then, one of our primary requirements of the providers that bid on our network to build it was that they provide open access so that our citizens and our businesses will have a choice and that can be fixed wireless, mobile wireless from any price standards and the speed of performance, and we believe we've accomplished that.

Senator LAUTENBERG. Yes, and the marketplace is divided among several or many providers?

Mr. BERRYMAN. It will when we bring the network up.

Senator LAUTENBERG. Right, and Mr. Boone, who will be your competitors? Are there people lusting after the marketplaces that you're serving?

Mr. BOONE. Well, apparently some municipalities are, but at the same time, again, unlicensed spectrum, there's wireless providers we have. There's a wireless competitor that we're facing in a community or an exchange, telephone exchange, that only has 200 customers, and someone built a wireless network. They're competing with us for broadband, and that was the private individual that chose to move forward in that way.

Senator LAUTENBERG. Right, but—and that's the essence of the private system.

Mr. BOONE. I have no problem with that competition.

Senator LAUTENBERG. Well, I thought you wanted to block out a little bit of that competition.

Mr. BOONE. Well, I think that as it may relate to when I have to be competing with the government, that's where I have my—that's where I begin to struggle.

Senator LAUTENBERG. So, we select out those you don't like and take in those that you do, and it's a dilemma because as the technology evolves, so does the appetite change because of product availability, and I mean the growth of wireless changed that equation—the equation substantially. And so, I think it's—again, it's a little bit oranges and apples, and when you talk about it, cities and the marketplaces as large as Philadelphia, and you talk about the more remote places in the country who also want and desperately need the service, when you talk about the ancillary results, Mr. Chairman. When you talk about businesses that make decisions about locating someplace, and what kind of tools do they have to work with in a marketplace that's in an operating facility that's attracted by lots of other standards but left out of some of the technology that is so vital in today's world? Mr. Chairman, thanks.

The CHAIRMAN. Thank you. I don't think we meant this to be a hearing on your bill, but that is one of the issues involved in this situation. Is Mr. Berryman going to have a franchise, Ms. Neff?

Ms. NEFF. No, it's not a franchise.

The CHAIRMAN. Are there going to be franchises available through the city of Philadelphia?

Ms. NEFF. The city of Philadelphia only franchises in the cable area. These are agreements to use city-owned assets for which EarthLink will pay a fee, so it's additional income to the city.

The CHAIRMAN. Let me go back to some of the other issues. Yesterday, I commented upon the need, I think, for a Federal/state joint board to try and work out some of the problems that relate to this area. None of you, I think, really commented on that. I don't

know whether I've possibly reached an agreement with you or not. Ms. Munns, you're the president of the National Association. What do you think about it?

Ms. MUNNS. Well, I appreciate your remarks, and we really did appreciate you reaching out because we think that, like some other mechanisms, that's one of the things that you could use in assuring that rules that were made were not just made in Washington, but took into concerns of those issues at the state. That's one way that you could set it up. I think the real question is when issues come up, how much experimentation do you allow before you know that it's time to go to a Federal rule on something. Because as I said before, I don't know that we're necessarily opposed. We understand the concept of a Federal framework, but how do you know what to put into place until you've had some experimentation?

The CHAIRMAN. Well, what about the size of the font of the bill or the length of the franchise or the necessity for being, fair and equal handed, about dealing with separate applications for franchises? What about the situation of whether cable is going to get a franchise, but over the air, it's not going to get a franchise unless they do specific things? Do you agree with us that someone has to make some decisions? We can't have 40,000 different franchises in order to get a competitor into an area that has a monopoly right now.

Ms. MUNNS. Right, in my comments, I said, you know, we are very supportive of technology-neutral kinds of rules. We're supportive and understand the need for a Federal framework. It's at what point do you go to that, and how much flexibility do you allow to deal with new and novel situations or to deal with just local concerns? What kind of mechanisms? Do you say to people, you can try some experimentation out there, at some point, you have the right to petition the FCC, and they will take it up and within a certain amount of time, deal with it on a national level, allowing the states to continue with what they're doing until there is a Federal rule?

What John Perkins talked about was the truth-in-billing, and I think that's a Federal approach to consumer issues. To the extent it went, that is a Federal framework. But again, it gets to the issue of how much flexibility do you have back at the states under that Federal framework, and at what point do you move things to the national level, and what point are you preemptive and say, these are what the rules are, you can do nothing different even if you have consumer complaints or local concerns?

The CHAIRMAN. But if we create the authority for a joint board, it would have to be done in the bill that we're talking about, the Telecom bill. It wouldn't come into effect until next year. It's going to be a couple of years before it goes down the path and we get some report from the joint board. Would your National Association be willing to sit down with our staff and work out what kind of subjects can be put within that joint board if we created one?

Ms. MUNNS. Oh yes, we would. We've had experience with joint boards in the past. I think we have a Universal Service joint board that we've had a very good experience with sitting down and making recommendations.

The CHAIRMAN. Mr. Perkins, what about the consumer interests in that?

Mr. PERKINS. NASUCA would welcome the opportunity to be part of such a discussion, Senator. I might just add that I think that probably the overarching issue that Congress ought to reach in this is one that Ms. Munns alluded to and Senator Ensign did also, and that's the issue of should Congress even get involved in this area of municipal versus private enterprise, or is that more properly a state issue that individual states ought to be left alone to decide within their states whether they're going to allow their municipalities to compete or not compete. And I don't have an opinion on that. I just throw that out as something I think that the Congress ought to consider very heavily as I'm sure you will.

The CHAIRMAN. But if you're in a municipality that's already got a football field, and the franchise is going to come up for renewal soon, and there's a competitor going to come in, do you want to have bidding to see who builds the baseball field to provide communication services to that municipality?

Mr. PERKINS. Well——

The CHAIRMAN. Our problem is that there seems to be a quid pro quo for these franchises that goes beyond communications, goes beyond a fee for the municipality, and it's who is willing to do things beyond communications. But, by the way, ultimately, it comes out at the cost of the consumer, doesn't it?

Mr. PERKINS. Sure, absolutely it does, Senator. My only point was the issue of not whether that's proper or improper. The issue I believe is more should a state legislature deal with that issue within its state boundaries, or should Congress deal with that issue on a national level, and I was just saying——

The CHAIRMAN. Well, I guess I'm sort of Peck's bad boy, but you've got cable at 80 percent penetration of all the homes in the country. Now, we have broadband coming in, and we have new competitors that want to come in and compete with them, and the franchise, as I pointed out yesterday, I'm told they're getting one a year.

Mr. PERKINS. Right.

The CHAIRMAN. With 40,000 out there to get to compete fully on a national basis. Now, am I wrong to think there's a Federal interest in seeing to it that there is national as well as local competition?

Mr. PERKINS. Well, you've quickly outstripped my knowledge in this area, Senator, I'm afraid.

The CHAIRMAN. Ms. Munns.

Ms. MUNNS. We were talking earlier about how these different platforms did different things like cable did video, and the copper wires provided voice and that we really had convergence where we're able to deliver same or similar services over these same networks. So, we should approach these in a technology-neutral way. I think everybody wants these services, and we want these services in our communities just as quickly as we can get them. I think that the cities will say we have some legitimate issues on franchising things, the use of city services. And those things should be dealt with, but I think what we're trying to do here is get these different platforms bringing as many consumer choices to people as we can.

The CHAIRMAN. Well, I'm told now that you either got a cell phone or the new iPod. And you can pick up television, pick up your messaging, pick up your telephone, you can even have them stream down a movie and watch it while you're on a bus. Now, if I'm in Philadelphia, and I've got one of those, am I going to be subject to some problem in Philadelphia? The people that are providing that through fixed wire or through cable or through the over-the-air today, they're all subject to some form of regulation from the Federal Government all the way down to cities. These things, these are totally ambulatory systems that can do all of those things without a franchise or anybody.

Now, I think we're going to have to get together and figure out what's right and what's wrong. Clearly, the telephone systems now that have the ability to go broadband, and we've got all this spectrum that's going to be auctioned here soon, it's going to be a really rampant competition, but shouldn't, somehow or other, we have a framework so it's fair? And I——

Ms. MUNNS. I think you're exactly right.

The CHAIRMAN. Aren't you the people we ought to talk to to determine what you think is your jurisdiction as opposed to what we think we ought to do on a national level? So, I would urge your association to see your way clear to work on this soon with us. This bill's going to have to start moving in March.

Mr. PERKINS. We would welcome that opportunity.

The CHAIRMAN. Thank you. Mr. Altschul?

Mr. ALTSCHUL. Yes, Senator, we——

The CHAIRMAN. You've had a comment before, and I read it in the paper or something yesterday about Universal Service concepts. You didn't mention that in your statement today.

Mr. ALTSCHUL. Well, we weren't invited to, but I'll be happy to mention that. The wireless industry today pays into Universal Service. And increasingly, we've been able to expand and to——

The CHAIRMAN. Yes, but you said that you weren't getting as much out as you pay in.

Mr. ALTSCHUL. That's quite true.

The CHAIRMAN. I don't think anybody does.

Mr. ALTSCHUL. Well, wireline carriers, because of the additional amounts that we're paying in, the wireline industry in whole is now getting more out than they pay in, for example, but there are two things that are going on in Universal Service. As intended, it certainly does move funds to support high-cost rural areas and build out important services in those areas, but it also, across competitive technologies today, is moving money from one kind of competitive industry to another.

And what we support is a system that fulfills everyone's goal, which is to encourage these new modern services in high-cost underserved rural areas, but in a way that also promotes the same competitive benefits that consumers in urban areas receive and don't think twice about. Today, they have all the choices. The same kinds of choices and same benefits of competition should be available in all markets.

The CHAIRMAN. Well, I don't intend to prolong this, I should just say the PUC group initiated the process which started the movement toward Universal Service and interstate rate pool, we did

that to be able to take the modern world to places where they didn't have service at all. We've still got a 100 villages out of our 241 that don't have any Internet at all, but more than half of our Universal Service Fund is being spent in the inner core city now to take the service to people who can't afford it. And I don't argue with that, except the balance is not there anymore, but we still haven't finished the job of taking it either in Hawaii or Alaska and the places where they're still in the 19th century.

Mr. ALTSCHUL. But we believe wireless has a role——

The CHAIRMAN. I really think, however, that the problem has to be addressed from the point of view of who pays now and out in the future world for into the Universal Service Fund and who gets what out of it. We've got to deal with that. We haven't had that full hearing yet, but I hope we will have it, and it'll be a provocative one, I'm sure. I do thank you all for coming, and I hope that—Ms. Munn said she would discuss with your association the concepts we're looking at. We don't want to create a joint board if no one's going to come to the party, OK? Thank you all very much.

Ms. MUNNS. Well, we look for any opportunity to have this partnership.

The CHAIRMAN. I hope it will be a very productive partnership. Thank you all very much.

[Whereupon, at 4:11 p.m., the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF HON. DANIEL K. INOUYE, U.S. SENATOR FROM HAWAII

The global marketplace has become reliant on the instantaneous exchange of information. Thus, communities across the country are recognizing that access to high-speed networks is essential if they are to remain competitive.

However, some communities have found that the locally available broadband services are either inadequate or nonexistent, and they have stepped forward to provide better access for their citizens.

Opponents of these government-backed initiatives want to impose limitations or prohibit local governments from delivering broadband services. They argue that government-backed entities will have an unfair advantage over private industry.

As we examine the many changes in the communications marketplace, we must examine the traditional distinctions between intrastate and interstate services that also have determined the dividing line for state and Federal regulatory authority.

I look forward to hearing the witnesses' views on the future of the telecommunications marketplace and the appropriate local, state, and Federal roles. These are difficult questions that will not be resolved in a single day, but I am pleased that we will begin the dialog today.

PREPARED STATEMENT OF HON. JOHN MCCAIN, U.S. SENATOR FROM ARIZONA

I am pleased the Committee has chosen to review the timely issue of municipal broadband networks. Over 200 cities and towns in the Unites States plan to deploy community networks over the next year, and 99 municipalities already have some kind of system in place.

The State of Arizona boasts the largest approved municipal broadband system in the United States. The City of Tempe's wireless system will serve all 40 square miles of the city and its population of 159,000, including the campus of Arizona State University. According to Tempe Mayor Hugh Hallman, the system will allow police officers to easily access national and state criminal databases from the field, permit fire fighters on-scene access to city data of building layouts and hydrant placement information, and provide water department employees the ability to monitor storage tanks, dams and canals with wireless cameras. In addition to these cost saving applications, the city's system will provide first responders a second emergency communications system in case the primary systems fails in a time of need and grant citizens Internet access from anywhere at any time.

Because several state legislatures were considering legislation that would ban municipalities from launching such networks, Senator Lautenberg and I introduced the Community Broadband Act this past June. This bill would ensure that any town, city, or county that wishes to offer high speed Internet services can do so.

I recognize that our Nation has a long and successful history of private investment in communications infrastructure. That history must be respected, protected, and continued. However, when private industry does not answer the call because of market failures or other obstacles, it is appropriate and even commendable, for the people acting through their local governments to improve their lives by investing in their own future. *Fortune* Magazine stated in an article dated October 19, 2005, "The question of where exactly government ends and the private sector begins is one we've wrestled with throughout our Nation's history. What would Ben Franklin think about privatizing the post office? But at certain moments . . . this dilemma comes to the fore. Welcome to another of those moments. The issue: municipally backed WiFi [broadband systems]."

A few incumbent providers of traditional telecommunications services have attempted to stop local government deployment of community high speed Internet services. Our bill would do nothing to limit their ability to compete. In fact, the bill would provide them an incentive to enter more rural areas and deploy services in partnership with local governments. This partnership will not only reduce the costs

to private firms, but also ensure wider deployment of rural telecommunications services. Additionally, the bill would aid private providers by prohibiting a municipality when acting as both "regulator" and "competitor" from discriminating against competitors in favor of itself.

Several newspapers have endorsed the concept of allowing municipalities to choose whether to offer high-speed Internet services. *USA Today* rightfully questioned in an editorial, "Why shouldn't citizens be able to use their own resources to help themselves?" The *Washington Post* editorialized that the offering of high speed Internet services by localities is, " . . . the sort of municipal experiment we hope will spread." The *San Jose Mercury News* stated that a ban on localities ability to offer such services is "bad for consumers, bad for technology and bad for America's hopes of catching up to other countries in broadband deployment." Finally, the *Tampa Tribune* lectured Federal and State legislators, "don't prohibit local elected officials from providing a service their communities need."

I look forward to hearing from the witnesses and hope my colleagues will be persuaded by the testimony here today to sign on to S. 1294, the Community Broadband Act of 2005.

SUPPLEMENTARY INFORMATION SUBMITTED BY ROBERT K. SAHR

Thank you for the opportunity to testify before the Committee on Tuesday, February 14, 2006.

In my testimony and during questions and answers, I discussed the effect that municipal entry can have not just on an individual market but on the overall cost structure of a provider and, ultimately, to consumers outside of the market in question. Craig Anderson, Chairman of PrairieWave Communications, Inc., has offered his company's perspective on this issue in the attached letter. I hope you find it useful.

PRAIRIEWAVE COMMUNICATIONS
Sioux Falls SD, February 21, 2006

Hon. Robert K. Sahr,
Chairman,
South Dakota Public Utilities Commission,
Pierre, SD.

RE: MUNICIPAL COMMUNICATIONS NETWORKS

Dear Bob:

Thank you for the opportunity to outline our views with respect to the ownership and operation of communications networks by rural municipalities. We believe that our experience in small community development provides us with a unique perspective on the advantages and disadvantages of municipal ownership.

PrairieWave has been in the communications business for over 100 years, beginning as a small independent local exchange carrier in 1903 and later becoming a cable television and Internet service provider as these technologies became commercially feasible in rural areas in the 1970s and mid-1990s, respectively. In 1996, in response to the new competitive opportunities opened by the Telecommunications Reform Act of 1996, PrairieWave, then known as Dakota Telecommunications Group, began one of the first competitive broadband expansions in the country. Its plan was to bypass incumbent networks and deploy and operate a new regionally integrated, facilities-based, last-mile broadband network allowing it to deliver innovative bundles of convergent telecommunications services directly to homes and businesses in its service territory. Today PrairieWave is one of the largest rural competitive communications service companies, providing a full range of advanced voice, video, Internet and data services to 45 small communities in South Dakota, southwestern Minnesota, and western Iowa.

We realized early in our planning for this expansion that there are two fundamental economic considerations underlying small community developments:

- First, new convergent communications technologies allow the provisioning of voice, video and Internet/data services over one consolidated network. These multiple revenue streams combine to provide both a reasonable price for subscribers as well as a financial return on investment in the local outside plant, including the construction of individual local customer connections and the in-

stallation of customer premise equipment like data modems and video set top boxes.[1]

- Second, the best way to invest in new technologies at a reasonable cost to subscribers is by spreading the costs of that investment over a larger customer base, invoking what is known as economies of scale. This is only possible in a rural environment by interconnecting a number of communities into a single regional communications network, which is exactly what PrairieWave has accomplished.

I have enclosed a map of our service area that illustrates this last point. All of our community markets are interconnected with a fiber optic backbone network that we own (or lease) and operate.

You will note in reviewing this map that our service territory encircles the city of Beresford, South Dakota (a community of approximately 2,000 located approximately 30 miles south of Sioux Falls) and abuts and bypasses the community of Brookings, South Dakota (a community of approximately 18,500 located on our fiber optic network between Sioux Falls and Watertown, South Dakota). Why did we not develop these communities as part of our 1996 development plan? They meet all of our development criteria and would nicely fit into our regional network. But they are differentiated by a single important factor: they both own and operate independent municipal telephone systems.

We believe that it is fundamentally unfair for us to compete against a municipal owned network and so our board declined to do so. There are a number of reasons for our position:

- Municipalities are nonprofit organizations, which allows them to finance and operate a competitive network at a cost advantage that we cannot match. Private companies must operate at an after-tax profit margin sufficient to attract and retain shareholder investment given the risks of such operations, which are often ignored or minimized by municipalities for the reason discussed in more detail below.[2]
- Municipalities are also the Local Franchise Authorities regulating the cable franchises that we need in order to offer a full bundle of services necessary to cost justify our outside plant investment in any single community. This creates a regulatory asymmetry, since the municipalities themselves are not required to enter into cable franchise agreements for their own cable operations nor comply with the operating and financial burdens imposed on us by these agreements.[3]

  This is complicated by the fact that these municipalities are operating in their communities as monopolies, with all the inherent advantages of monopoly pricing (and disadvantages of the lack of market driven innovation and operating discipline). The grant of a competitive franchise to a convergent services provider would directly undermine this monopoly position. We did not believe that the resulting public franchise hearing process would be worth the time, cost and effort involved and that in the end, the process would result in adverse publicity and public hostility to our proposals that would undercut the success of our marketing and sales efforts in the communities.

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[1] I should point out in passing that this fundamental economic fact is directly threatened by the "Net Neutrality" debate currently underway, especially where the third party service like VoIP or video streaming simultaneously supplants one or more of these revenue streams while demanding free use of the network connection. The result of these rules, if adopted in their current form, will effectively halt the expansion of broadband networks in rural areas and jeopardize the ability of current networks to continue to operate without substantial local service rate increases or huge government subsidies. This is directly analogous to the current interstate access revenue problems experienced with respect to the long distance and cellular industries, which unfairly force rural communications companies to subsidize the develop of these competitors. For a detailed economic and regulatory analysis of this problem, *see, generally*, Anderson, Craig A., "*Toward a Fair Network Access Rate Policy*," 14 CommLaw Conspectus Journal of Communications Law and Policy, 2005, pp. 39–102.

[2] *See* the February 14, 2006 Testimony of Douglas A. Boone, CEO of Premier Communications, before the U.S. Senate Commerce Committee at p. 32 (describing in detail and quantifying the nonprofit financial advantages).

[3] The numerous problems of cable franchising in an environment of convergent technologies is yet another competitive issue that demands the urgent attention of state and Federal Government and their respective regulatory agencies if rural broadband network development is to continue. Current regulations are unclear and unevenly applicable to all forms of technologies, creating further competitive and regulatory asymmetries and resulting financial and market distortions.

- Municipalities can use their taxing authority to underwrite low cost financing for network construction and to subsidize network operations. It is interesting to note that the threat of using this authority to raise taxes to cover competitive operations also operates as a powerful incentive for customers to stay with the municipal system rather than switch to a competitive provider. [4]
- Municipalities also enjoy the ability to provide the convenience of single billing for telecommunications and other municipally owned services like garbage collection, water and other utilities.

PrairieWave's expansion plan is therefore a real world example of the anti-competitive impact of municipal owned communications networks, at least in rural areas comprised of relatively small communities. This operates to the direct disadvantage of our customer base due to our inability to incorporate these communities into our regional network thus limiting the full impact of economies of scale. It also disadvantages the citizens of these municipalities for several reasons:

- The municipalities are unable to replicate the economies of scale that the residents of our interconnected competitive communities enjoy. Municipalities are required to restrict their operations to their city boundaries, and no single community in our region, including Sioux Falls (a community with a population of approximately 145,000 and the largest community in our state and in our service area) has the resources on its own to provide as large a network footprint as PrairieWave has developed.
- These municipal networks are also exposed to technology and business risks that are better assumed and managed by private communications providers like PrairieWave. Municipal exposure to these risks (and the exposure of their taxpayers) is unnecessary when a private company is willing to build and operate a network in the community. [5]
- As a result, the services provided by municipal owned networks are not as advanced as those operated by the new private convergent service providers. Internet access speeds and data rates are slower. Video offerings are more limited. And new technologies, like video on demand, interactive video services, and voice over Internet protocol (VoIP) that are provided by PrairieWave in the areas surrounding these municipal systems are largely not available to the residents of these communities.

Once in place, municipal owned networks thus simultaneously discourage competition that would otherwise develop and fail to provide the benefits of new technologies to their citizens. [6] They short-circuit the very market forces that would normally operate to encourage private companies like PrairieWave to provide more advanced services at a much lower risk to the community and lower cost to their residents.

Which brings us to our last point: Municipal systems might make sense where normal market forces cannot provide the proper incentives for private companies to provide these services. These would be the relatively rare instances of "market failure" that might justify a community taking the inherent technology and operating risks in an effort to provide more advanced communications services to stimulate economic development and improve the lifestyle of their residents. For this reason,

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[4] *See* Boone, *supra* n.2, at p. 2 (describing exactly this threat as actually made by the City of Sanborn, Iowa, which built a municipal system in direct competition with the incumbent ILEC).

[5] It should be noted here that there is often a good reason why private companies are not currently building or planning to build advanced telecommunications networks in some communities—the business and technology models are unproven with high levels of risk. This is currently the case with WiFi networks, and the cities that are rushing to build municipal WiFi networks are ignoring these perfectly rational market decisions at their own peril. See, also, Boone, *supra* n.2, at p. 3 ("Many who promote the idea of municipal-owned broadband networks are touting their plans as "no-risk," but numerous muncipalities around the country who bought into the "no risk" idea have found themselves unable to support and finance the continual and expansive upgrades needed to maintain a local network."). Boone describes specific examples of such problems and cites and quotes a major independent study of three municipal networks in Iowa, none of which has produced the hoped for return on investment. *Id.*

[6] PrairieWave is not the only small rural community service provider to recognize these problems. See Boone, *supra* n.2, at pp. 1–2 ("Government owned networks are not akin to other public utilities. In fact, government networks are more akin to City Hall opening a chain of grocery stores or gas stations. They typically require heavy taxpayer subsidization, which minimizes any net benefit to local residents. They also benefit from tax advantages and regulatory exemptions that do not apply to private firms. Because they are not subject to the pressures and stresses of the marketplace, they often neglect innovation, which leads to technological stagnation over time.")

we endorse the methodologies for determining the appropriateness of municipal ownership of communications networks outlined in your February 14, 2006 testimony to the U.S. Senate Commerce Committee, particularly the approach advocated by the South Dakota Telecommunications Association of which we are a member. But we caution all communities that the technology and operating risks associated with today's communications industry are challenging and difficult, and should not be lightly dismissed.

If you have any questions or would like any additional information about the issues discussed in this letter, please do not hesitate to call.

Sincerely yours,

CRAIG A. ANDERSON,
Chairman, PrairieWave Communications, Inc.

PREPARED STATEMENT OF THE AMERICAN PUBLIC POWER ASSOCIATION (APPA)

The American Public Power Association (APPA) is the national service organization representing the interests of the Nation's more than 2,000 state and community-owned electric utilities that serve over 43 million Americans. These utilities include state public power agencies, municipal electric utilities, and special utility districts that provide electricity and other services to some of the Nation's largest cities such as Los Angeles, Seattle, San Antonio, and Jacksonville, as well as some of its smallest towns. The vast majority of these public power systems serve small and medium-sized communities, in 49 states, all but Hawaii. In fact, 75 percent of publicly-owned electric utilities are located in communities with populations of 10,000 people or less.

Many of these public power systems were established largely due to the failure of private utilities to provide electricity to smaller communities, which were viewed as unprofitable. In these cases, communities formed public power systems to do for themselves what they viewed to be of vital importance to their quality of life and economic prosperity. Today, public power systems are meeting the new demands of their communities by providing broadband services where such service is unavailable, inadequate, or too expensive.

Public power systems across the country are providing their communities with affordable broadband services. Over 600 public power systems now provide some kind of advanced communications service, whether for internal or external purposes. This is a ten-fold increase since Congress enacted the Telecommunications Act of 1996, and the number of public power systems providing or planning to provide services continues to increase. The services delivered by public power systems include high-speed Internet access, voice-over-Internet protocol (VoIP), cable television, and local and long distance telephony.

As this Committee begins to formulate policies that would best foster a thriving, competitive communications marketplace, where affordable broadband service is available to all Americans as rapidly as possible, it should recognize the important role publicly owned electric utilities can play in achieving President Bush's goal of universal broadband deployment by 2007. Public power systems are providing a wide array of advanced communications services in underserved areas using a wide variety of platforms—fiber-to-the-subscriber, broadband over power lines, hybrid fiber-coaxial, and wireless. They are also fostering a competitive marketplace where consumers are benefiting from the availability of advanced communications services that are the lifeblood of economic development and can support rich educational and employment opportunities, advanced health care, regional competitiveness, public safety, homeland security, and other benefits that contribute to a high quality of life.

This statement will provide an overview of why public power systems are providing advanced services over broadband networks, how they are providing those services, and the types of services being provided. It will also provide an overview of the campaigns waged against public power systems by the opponents of municipal broadband and the legal barriers to entry APPA's members face at the state level. In addition, this statement will discuss the policy justifications for allowing municipalities to meet the needs of their communities by providing affordable broadband services and will refute the arguments made by the opponents of municipal broadband.

History Is Repeating Itself: The Parallels Between the Electricity Marketplace a Century Ago and the Broadband Marketplace Today

Before addressing the reasons why community-owned electric utilities are providing broadband services, we think it is important to look briefly at the history of

the electric utility industry and public power. There are many similarities between the early days of electrification at the turn of the 19th century and broadband deployment today.

The electric utility industry is 125 years old. When electrification first began, many argued that electricity was a luxury. While that notion was quickly rebuked as it became widely recognized that electricity was a necessity for economic development, public health and safety, and quality of life, many smaller and rural communities were left behind. Private sector providers rushed to wire highly profitable urban areas, but failed to provide service to communities that were not attractive investments for private enterprise. Because of market failures such as lack of providers, poor service, and high prices, communities began creating their own electric utilities at a frantic pace.

The community leaders who proposed public power did not regard this as an ideological choice between public versus private, but a pragmatic choice between providing this new utility service or watching their communities fall by the wayside. Private providers saw things somewhat differently. Alarmed by the growth of municipal electric utilities, they conducted campaigns to erect barriers to entry. Some of their tactics included: (1) advocating a "natural monopoly" theory and calling for state-regulated monopolies that would preclude direct competition between public and private utilities; (2) creating political opposition at the local level; and (3) engaging in anticompetitive practices such as denial of transmission access and predatory pricing. While private providers had some limited success in these efforts, public power survived and continues to thrive today.

The similarities between the electricity marketplace a century ago and the broadband marketplace today are striking. Broadband access has many of the same fundamental dynamics and characteristics as electricity at the end of the 19th century. First, broadband is essential for economic development. Businesses must have affordable access to it to compete both regionally and globally in the 21st century. They will locate and expand where access is available and avoid cities and towns where it is not available. Second, broadband supports rich educational and employment opportunities, advanced health care, and other benefits that contribute to a high quality of life. Third, broadband has the same market failures today as electricity had—a lack of providers in some areas, or poor service and high cost in other areas. Public power systems began stepping in to address these market failures at the request of their towns and cities.

Why Public Power Systems Are Providing Essential Broadband Services

It is a natural progression for communities that own their own electric utilities to expand their services to include broadband. While public power communities are not the only communities providing broadband service, they have resources that make offering such service easier. Electric utilities use advanced communications technologies for internal purposes, such as monitoring electric distribution networks, automated meter reading, and internal wireline and wireless communications. It is not very difficult for such utilities to expand their communications capabilities to provide external, community-wide services when requested to do so by their residents.

Community demand for services is usually driven by the failure of the market to provide specific services at reasonable prices that the community needs to grow and prosper. For many APPA members, the reason the utility even explored entering the communications marketplace was that businesses and residents came to them asking for service. In Scottsburg, Indiana, for example, the municipal electric utility deployed a wireless broadband network in order to prevent a Chrysler repair shop from leaving the town due to a lack of affordable broadband. Before pursuing this course of action, the local government first asked Verizon to provide the service. Verizon refused because the town was too small for the company to justify the investment. Had the municipally-owned utility not provided the service, at least 60 jobs would have been lost.

Eight years ago in Provo, Utah, the city government undertook a careful study to determine how it could use technology to benefit its residents. Local officials decided to reconstruct Provo's traffic control systems, significantly upgrade its electric utility monitoring and control systems, and bring about broadband interconnectivity between all city-owned and operated facilities. As it turned out, all of these initiatives depended upon Provo's ability to obtain broadband at various locations throughout the city.

The city approached five private sector companies that held franchise rights to provide fiber optic data connectivity. As part of their franchise agreements, all of the companies agreed to provide such service to all city owned facilities. None of them ever did. Ultimately Provo determined the best option would be to build its

own city-wide fiber optic backbone. Soon after this backbone was completed, local schools, small businesses, and others in Provo asked to be connected. After careful study and analysis, the Provo City government decided to provide true high speed data access to the community at large. Its motivation for providing broadband was very similar to the motivations of other public power broadband communities.

Economic development is a key reason for public power entry into the communications marketplace. The availability of affordable broadband service is critical to retaining existing businesses as well as attracting new businesses in today's highly competitive global marketplace. In many public power communities, business leaders and locally elected officials have approached the private sector about providing essential broadband services at affordable rates. In many cases, the private sector has responded that it did not have immediate plans to provide broadband service or upgrade existing services to meet the bandwidth needs of businesses and residents.

Smaller communities have two choices—wait until an incumbent provider decides to provide service, if it does so at all, or build the network themselves. Many APPA members have decided to deploy broadband networks because they understand that access to advanced services helps retain and attract new businesses, creates new jobs, increases productivity, allows for telemedicine and telecommuting, and improves the quality of life for residents. These communities have recognized that if they waited for the private sector to provide affordable broadband service, they would fall behind and not be able to compete in today's information age.

Public power systems throughout the United States have seen direct economic benefits from deploying broadband networks. They have attracted new businesses as well as retained existing businesses because of their broadband networks. In Cedar Falls, Iowa, the Mudd Group, a marketing, advertising, and public relations firm specializing in the automotive industry would have left the city if affordable broadband services were not available. Because the municipal electric utility constructed a fiber-to-the-business network, Mudd expanded its business and soon plans to break ground on a studio to produce digital media. TEAM Technologies, a web hosting and data management company, moved to Cedar Falls in 1996 because of the city's communications infrastructure. In 2004 TEAM finished construction of a multi-million dollar data center that provides highly reliable and secure data services, including bandwidth and back up storage service for corporate clients.

A 2004 report entitled *The Economic and Community Benefits of Cedar Falls, Iowa's Municipal Telecommunications Network* by Doris Kelly of Black and Veatch, which analyzed the economic growth of Cedar Falls and the neighboring city of Waterloo, attributed Cedar Falls' higher tax base and job growth to the presence of a municipal broadband network.[1] Waterloo and Cedar Falls are very similar communities. What distinguishes them from each other is the presence of a municipal broadband network. Similarly, a recently published study involving Lake County, Florida, showed that public communications projects can have a very significant positive impact on the economic development of an area.[2] Clearly, the availability of affordable broadband service is an important factor in businesses' decisions to locate to an area, and a driver of economic development.

Technologies Used by Public Power to Provide Essential Broadband Services

Public power systems that are providing broadband services are using a wide variety of technologies to do so. Publicly owned electric utilities such as Provo, Utah, Bristol, Virginia, Kutztown, Pennsylvania, Jackson, Tennessee, Grant County Public Utility District, Washington, and Dalton, Georgia have built fiber-to-the-subscriber networks. These ultra-high-speed fiber systems provide users with voice, video, and data services as well as give them the ability to utilize high bandwidth applications such as real-time video conferencing, IP video, and rich multimedia activities such as interactive games.

Other communities such as Wyandotte and Coldwater, Michigan, Glasgow, Kentucky, and Muscatine, Iowa, provide broadband service over hybrid fiber-coaxial networks similar to those used by cable companies. This type of network can provide residents with high-speed Internet access using a cable modem, as well as cable television and VoIP service. More recently, APPA members have been using wireless technology to provide broadband service. Scottsburg, Indiana, Owensboro, Kentucky,

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[1] See Doris Kelly, *The Economic and Community Benefits of Cedar Falls, Iowa's Municipal Telecommunications Network*, Black and Veatch, July 6, 2004.

[2] George S. Ford and Thomas M. Koutsky, Broadband and Economic Development: A Municipal Case Study from Florida, *http://www.aestudies.com/library/econdev.pdf*.

Coldwater, Michigan, and Spencer, Iowa, are just a few of the systems providing wireless broadband.

In addition, APPA members are also starting to provide broadband service using broadband over power line (BPL) technology. Manassas, Virginia, is the first municipality in the country to provide its residents with BPL service. This technology allows electric utilities to use their power lines to provide high-speed Internet access service comparable to DSL service, with equal download and upload speeds. This exciting technology not only allows public power systems to provide affordable Internet access service, but also allows utilities to improve the monitoring of their electric distribution networks, which increases electric reliability and helps detect outages in real time without the need to hear from customers about power outages. Other APPA members testing BPL include Hagerstown, Maryland, Princeton, Illinois, and Rochester, Minnesota.

Advanced Services Provided by Public Power Systems

Community-owned electric utilities provide a wide variety of services to their residents either directly or in partnership with private-sector providers. The types of services APPA members provide fall into one of two categories. The first is internal service, which is usually a municipal data network that connects municipal governmental entities to one another. As of the end of 2005, 272 public power systems offered municipal data networking.

The second category is external service. These services are offered to individuals or entities outside of the utility and municipal government. External services include fiber leasing, Internet access (both high-speed and dial-up), cable television, broadband resale, local and long-distance telephony, and VoIP. As of the end of 2005, 105 systems were providing cable television service, 175 were leasing fiber, 132 were Internet service providers, 47 provided long-distance telephone, and 57 provided local-phone service. A handful of systems are either providing or testing VoIP service.

The Many Benefits of Public Power Broadband

Many communities have decided to provide residents and businesses with critical broadband infrastructure because they recognize the growing importance of broadband for commerce, health care, education, and improved quality of life. Looking to the early pioneers of municipal broadband that have been models to other communities, they have seen the many benefits of providing access to an essential 21st century service. Some of the key benefits of municipally provided broadband service include lower prices, increased competitiveness in the communications marketplace, responsiveness to local needs, economic development, and universal access.

In many cities and towns across America, broadband service is too expensive for businesses and residents. In Iowa for example, the Iowa Utility Board has reported that many communities are charged up to $169 a month for 1 mega-bits-per-second DSL service.[3] However, in public power communities that are providing broadband service, consumers are paying lower rates for such service. In Manassas, Virginia, residents can get BPL service for $28.95 a month. In response to the presence of a third provider of broadband service (the City of Manassas in partnership with COMTek, a telecommunications and information systems technology company) both Comcast and Verizon lowered their prices in Manassas. Consequently, even those residents who have not switched to Manassas' BPL service have received a direct economic benefit from the introduction of a third provider in the form of lower prices from the incumbent providers.

The presence of municipal broadband providers has also resulted in a more competitive communications marketplace. Many public power broadband networks provide open access to other private sector providers. Competitive local exchange carriers and other competitive communications companies use municipal networks to deliver services to businesses and residents. In fact, the presence of a municipal provider can actually increase the number of competitive providers in a marketplace. An economic analysis by George Ford of Applied Economic Studies found that in Florida, localities that owned their own broadband network had more competitive local exchange carriers in the marketplace than localities that did not have municipal broadband networks.[4] Rather than crowding out investment, as asserted by the

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[3] See *Connecting the Public: The Truth About Municipal Broadband*, Media Access Project, Consumer Federation of America, Free Press available at *http://www.mediaaccess.org/MunicipalBroadband_*WhitePaper.pdf (citing *http://www.iowatelecom.com/ residential services/article.asp?id=220&PID&GPID*).

[4] *See* George S. Ford, "Does Municipal Supply of Communications Crowd Out Private Investment? An Empirical Study," Applied Economic Studies (February 2005) at *http://www.aestudies.com/*.

opponents of municipal broadband, it appears that the presence of such a system actually increases the number of communications providers in the market.

In addition, municipal broadband providers are highly responsive to local needs. Residents can have a direct say in the types of services provided over broadband networks. Utility managers and locally elected officials are available to the public at open meetings to discuss their concerns and seek input on how to improve or expand service. Also, customer service is locally available to help individuals with setting up their service or fixing problems.

Universal access is another benefit of municipal broadband. Public power systems providing broadband services ensure that all residents can receive such services and at an affordable rate. Low-income neighborhoods are not passed by. Schools and hospitals are provided with significant bandwidth to enable rich multimedia applications that improve education and health care. For example, in Leesburg, Florida, public hospitals can send medical images such as MRIs and x-rays to doctors' offices in seconds over the city's optical network.

Economic development is yet another benefit of municipal broadband. As stated earlier, local governments recognize the importance of broadband for commerce, education, health care, and quality of life. The availability of affordable broadband helps retain and attract businesses, leading to more jobs and stimulation of the local economy. In Kutztown, Pennsylvania, Saucony Book Shop moved its business from Allentown, Pennsylvania, because of the borough's fiber-to-the-subscriber network. Paisley & Company bath shop also moved to Kutztown, opening a shop downtown and advertising its products online. In Provo, Utah, Riverwoods Medical Imaging Center employs state-of-the-art software to deliver hundreds of digital images to doctors quickly over the Internet. Without the bandwidth available over Provo's fiber network, Riverwoods would not have been able to provide its digital imaging services.

Local governments are not the only entities that recognize the benefits of municipal broadband systems. A large number of organizations representing private industry, educational interests, and consumers support the ability of municipalities to provide broadband services and have publicly expressed their support. Some of the entities that support municipal broadband include Tropos Networks, Intel, the Fiber to the Home Council, the American Library Association, Earthlink, Free Press, Media Access Project, and the Information Technology Association of America. These organizations and companies, as well as others who are members of the Community Broadband Coalition, sent a letter to the Members of the Senate Commerce Committee on Monday, February 13, expressing their support for the ability of municipalities to provide broadband services and S. 1294, the Community Broadband Act. That legislation, introduced by Senators Frank Lautenberg (D–NJ) and John McCain (R–AZ), would ensure that communities that want to provide broadband services to their citizens can do so. APPA strongly supports this legislation and urges the Committee to incorporate its language into a broader telecommunications overhaul bill.

Legal Barriers to Entry Faced by Municipal Providers of Broadband Services at the State Level

Just as there was fierce opposition from private enterprise to publicly owned electric utilities 125 years ago, today there is fierce opposition to publicly owned broadband networks from some in private enterprise. Opponents of municipal broadband have used a variety of tactics to undermine, discredit, or block the deployment of broadband by public power systems. Threatened by the prospect of a public provider that is responsive to community needs and charges affordable rates, telephone and cable companies, many of which have no plans to provide service themselves, have aggressively pushed for legislation in state legislatures across the country that would either prohibit municipalities from providing broadband services or significantly limit their ability to do so by erecting barriers to entry.

Currently 14 states have enacted laws that either prohibit municipalities from providing telecommunications, cable, and/or broadband services or limit their ability to do so through barriers to entry. At least one bill has already been introduced this year that would restrict the ability of municipalities to provide advanced communications services to their communities either directly or in partnership with other private sector providers.[5] Fortunately, the anti-municipal broadband language was stripped out during committee consideration.

Early measures pushed by the opponents of municipal broadband, which include incumbent telephone and cable companies, advocated prohibiting municipalities

[5] In Indiana, SB 245 as introduced on January 3, 2006, included anti-municipal broadband language. That language was later stripped during committee consideration earlier this month.

from providing telecommunications and other services. Texas, Missouri, and Nebraska enacted laws prohibiting municipalities from providing telecommunications services. Arkansas enacted legislation prohibiting local governments from providing local exchange service and Nevada precludes municipalities with populations larger than 25,000 from providing retail telecommunications service.

Other states have not enacted outright bans, but have instead adopted laws that create barriers to entry by significantly restricting the ability of municipal entities to provide advanced communications services. These statutes impose burdensome procedural and accounting requirements, such as referenda, the imputation of certain costs not actually incurred, and public disclosure of information to which private sector providers are not subject. States that have adopted such approaches include Florida, Minnesota, South Carolina, Tennessee, Virginia, Wisconsin, and Utah. In addition, Utah and Washington have adopted wholesale-only models, which prevent a municipal entity from directly providing service to the public.

The latest approach advocated by opponents of municipal broadband is probably the one most familiar to Members of this Committee—the right of first refusal—which was adopted by Pennsylvania in late 2004. It requires local governments to ask the permission of incumbent providers as a condition precedent to providing broadband services to the community. If the incumbent telephone or cable company indicates that it will provide the service within a certain time frame, the municipality is precluded from ever providing the service itself. This may appear reasonable at first glance, but as usual, the devil is in the details. The law makes data speed the only criteria and thus makes no provision for price, quality of service, consumer choice, mobility, symmetry, or any other factor, however significant it might be to the local community. In other words, nothing in the law provides a remedy if the incumbent provider states it will provide the requested service in the statutory time period, yet does not actually do so.

Campaigns Waged by Opponents of Municipal Broadband Against Public Power and Other Municipal Providers

In addition to pushing for anti-municipal broadband legislation at the state level, incumbent telephone and cable companies have utilized a variety of tactics to undermine and discredit community-owned broadband networks. Working with corporate-funded think tanks, opponents have maligned municipal broadband projects, asserting they are destined to fail, are subsidized by taxpayers, and/or crowd out private investment with little to no empirical basis for such assertions. In communities where local governments have asked their citizens to vote to go forward with projects, incumbent providers have spent significant amounts of money on anti-municipal broadband campaigns with the knowledge that municipal governments are legally precluded from spending any funds to promote projects. For example, in the tri-cities area of St. Charles, Batavia, and Geneva, Illinois, the *Kane County Chronicle* (IL) reported that Comcast and SBC spent over $300,000 on mailers, push-surveys, full-page newspaper ads, and local radio spots full of misinformation on municipal broadband projects.[6]

Representatives of incumbent companies have also employed scare tactics to dissuade local citizenry from supporting community-owned broadband projects. At a Lafayette, Louisiana, city-parish council meeting, a representative of Cox Communications suggested that if Lafayette Utilities Systems (LUS), the city's municipal electric utility, went forward with its fiber-to-the-premises project, it could invade the privacy of its subscribers by "allow[ing] LUS to monitor people's private phone, Internet or television viewing."[7]

Arguments Made Against Municipal Broadband

As was briefly discussed above, opponents of municipal broadband have asserted a variety of arguments for why local governments should not provide broadband service. Many of these arguments aver that municipalities have an unfair advantage because of their position as both competitive providers and regulators of services and that public entry is contrary to "level playing field" principles. Opponents also claim that municipal communications systems are failures and that municipal governments are too incompetent to operate such "complicated" technologies. A closer look at these arguments reveals that they are false.

One common argument made by opponents of municipal broadband is that localities providing such service are competing against the private sector companies they regulate. This assertion is quite misleading. Municipalities do not, and cannot, favor

[6] *See http://www.kcchronicle.com/SportsSection/310254315460507.php.*

[7] *See* 2theadvocate.com *Durel Defends LUS Plan* (May 1, 2004) at *http://www.2theadvocate.com/cgibin/printme.pl.*

their own municipal service entities. Municipalities do not regulate telecommunications service providers or Internet access providers. Such regulation occurs at the Federal and State levels, and even there, it is disappearing rapidly. Municipalities do issue franchises to cable operators, but cable franchising is governed by detailed Federal standards, and when municipalities provide cable services themselves, they typically assume regulatory burdens that are as extensive, or more extensive, than that of the private sector.

Municipalities also manage public rights of way and other public facilities. But Federal and most State laws require municipalities to act in a nondiscriminatory, competitively-neutral manner. In short, the premise underlying this myth—that municipalities have power to regulate in favor of their own services—is simply false.

A second common argument made by the opponents of municipal broadband is that localities have an unfair advantage against private sector communications providers because they do not pay taxes. It is true that public power systems are treated the same way as other governmental and non-profit entities under Federal and State tax law—they do not pay income taxes because they do not earn profits. At the local level, public power utilities are routinely required to make payments in lieu of taxes to their local governments that are often higher in amount than what the investor owned electric utilities pay in taxes. Evidence in Florida and other states indicates that the same is likely true of the payments made to local governments by public power broadband systems and private sector communications providers. Furthermore, public power utilities do not have access to the wide variety of tax benefits, such as accelerated depreciation and investment tax credits, available to the private sector. In Florida, for example, Bell South paid an effective state/local tax rate of 3.4 percent and Verizon paid 3.6 percent. Florida's municipal electric utilities paid an effective rate of 14.6 percent.[8] It is difficult to see how private providers can complain about the tax exempt status of public power systems that pay more to state and local governments than they do.

A third common argument asserted against municipal broadband is that localities have access to low-cost financing. The use of tax-exempt financing is a perfectly legitimate practice for pubic improvement projects. However, in today's market, tax-exempt financing is not always available and comes with many onerous burdens. While there is some advantage to tax-exempt financing, it may not be terribly significant because incumbent cable and telephone companies have access to the best commercial rates.

The opponents of public power broadband also argue that localities cross-subsidize communications services at the expense of electric rate payers. State and local enterprise laws prohibit municipal electric utilities from cross-subsidizing communications and other services with electric revenues. Such an argument is also disingenuous when the private sector is free to engage in cross-subsidization and routinely does so. Predatory pricing by incumbents in communities with municipal broadband networks is regional cross-subsidization. They are subsidizing service to the residents of those communities where competition exists at the expense of customers in localities that do not have community-owned broadband networks.

Yet another claim made against municipal broadband projects is that most are financial failures. Think tanks funded by incumbent telephone and cable companies have released papers claiming that various municipal broadband systems have failed. These "studies" are simply incorrect. Using flawed analyses, the authors of these "studies" apply performance criteria applicable to the private sector to municipal projects even though municipal projects have fundamentally different objectives. Public power systems are not trying to maximize profits. Instead, local governments set rates at the lowest level possible that will allow the utility to recover its costs and save their customers money. Some reports have also analyzed projects not operating long enough to generate meaningful data. Opponents routinely cite Cedar Falls, Iowa, as a failure in spite of the empirical evidence to the contrary. Copies of numerous studies providing point-by-point rebuttals to industry claims of municipal "failures" are available at *http://www.baller.com/barriers.html*.

Closely related to the failure argument is the claim that broadband networks are too complex a business for public power utilities. To assert that 100-year old entities with a long history of running highly complex electric systems cannot operate broadband networks is absurd. Public power systems that choose to provide broadband service are well prepared to provide such service. Many have used communications networks to provide internal services and monitor their electric distribution systems. In addition, several APPA members have been providing cable

[8] See "The Case for Municipal Broadband in Florida: Why Barriers to Entry Stifle Economic Development, Disadvantage School Children, and Worsen Health Care," Florida Municipal Electric Association (citing FMEA and FCC ARMIS 43–03 (2003)).

television service for over 20 years. Frankfort Plant Board in Kentucky has been providing cable service since 1954. Muscatine, Iowa, was one of the first cable TV operators in the country to deploy video on demand service in 2003. Frankfort Plant Board and Coldwater, Michigan, both deployed VoIP service in the summer of 2003, prior to when many cable MSOs began offering service. Assertions of municipal incompetence or lack of ability to manage broadband networks are clearly without merit.

Conclusion

Public power systems throughout the country are meeting their communities' needs by providing access to affordable broadband services. Recognizing the importance of broadband for commerce, health care, education, and improved quality of life, underserved communities are constructing their own networks to compete and thrive in today's information age. Many benefits accrue from community-owned communications systems including lower prices for consumers, increased competitiveness in the marketplace, responsiveness to local needs, universal access, and economic development. In spite of the obvious benefits of municipal broadband, incumbent telephone and cable companies have opposed such projects, pushing for legislation at the state level to prevent municipalities from providing broadband. Rather than work with local governments to provide service or acknowledge that municipalities that choose to provide broadband have legitimate reasons to do so, incumbent private providers assert disingenuous claims and unsubstantiated arguments. As this Committee begins to formulate policy on how best to promote a competitive communications marketplace where customers have access to a wide variety of Internet protocol-enabled services, APPA hopes the Committee will see through the baseless assertions of incumbent providers and recognize the important role that public power systems can play in providing such services to underserved communities.

PREPARED STATEMENT OF RONALD SEGE, CHIEF EXECUTIVE OFFICER, TROPOS NETWORKS

Mr. Chairman and Mr. Co-Chairman, and Members of the Committee:

As the proven leader in delivering ubiquitous, metro-scale WiFi mesh network systems throughout the world, we appreciate the opportunity to endorse S. 1294, the Community Broadband Act of 2005, and urge you to include it as part of any legislation rewriting the Telecommunications Act of 1996. In addition, we urge you to free up (or direct the Federal Communications Commission to make available) additional unlicensed spectrum in the 700 MHz band for use by wireless community broadband networks.

In our view and that of the Community Broadband Coalition, municipal broadband networks offer the promise of increased economic development and jobs, enhanced market competition, improved delivery of e-government services, and accelerated universal, affordable Internet access for all Americans. With President Bush having set the goal of achieving universal affordable access to broadband technology for all Americans by 2007, we need to encourage the development of more community broadband networks. Nothing could better help achieve universal affordable access for all Americans than enactment of S. 1294. We thus are grateful to Senators Lautenberg and McCain for introducing the legislation and Senators Coleman, Feingold, Graham, and Kerry for cosponsoring it.

In just the past few years, our Nation has lost its broadband leadership position. Having been 1st in the world in the 1990s, and 4th in 2001, the United States has fallen to 16th among industrialized nations in broadband penetration. Unfortunately, only 30 percent of U.S. households subscribe to broadband services, a reflection of high prices, too few choices, and unavailability of attractive services. Many countries that are outpacing us in broadband deployment, including Canada, Japan, and South Korea, have successfully combined municipal systems with privately deployed networks to bring high-speed broadband to their citizens.

In fact, the only bright spot for the United States is in the deployment of broadband wireless access points, where the United States continues to rank 1st, in part as a result of the emergence of municipal systems. We know this well because we are partnering with EarthLink, Motorola, and other leading companies in deploying those networks around the country.

In our experience, municipal broadband projects overwhelmingly encompass private entities partnering with local governments to bring about facility-based competition. An approach that would work in a large metropolitan area may not work in a small rural town. But cities and towns of every size should have the freedom

to choose how best to serve their constituents, especially those who have been underserved or face high prices or poor service from incumbent providers.

Rather than wait for their citizens to be served, many community leaders have taken the initiative. As a result, municipal networks are rapidly expanding and delivering enhanced services throughout the country, using a variety of business models. For example, Corpus Christi, Texas is today reading 73 gas meters a second over the city's WiFi mesh network. St Cloud, Florida is attracting businesses and residents with a city-wide WiFi network. In Philadelphia, we have teamed with EarthLink and One Economy Corp. to provide the widest possible services to citizens at every economic level and in every neighborhood of the city, a network that won't cost the taxpayers of Philadelphia a cent. Similarly, we have teamed with Motorola and EarthLink to bring the benefits of city-wide wireless broadband to homes and businesses in Anaheim, California, also at no cost to taxpayers. We are working with city officials in Alexandria, Virginia, to test a variety of services and are providing the means for the Arlington Police Department to enable its police force to enhance its law enforcement capabilities through a network we put up in the Courthouse-Clarendon corridor. And we soon hope to help New Orleans regain its economic footing as we expand the wireless mesh network that we helped build in a matter of days last year.

In the wake of Hurricane Katrina, our Nation painfully learned how a lack of first responder communications hampered rescue efforts in the Gulf Coast region. Throughout the Katrina ordeal, we were vividly reminded that seemingly mundane changes in telecommunications law can have unanticipated but profound effects. To "protect" its citizens, for example, Louisiana and Florida adopted legislation in recent years intended to slow the deployment of municipal broadband networks. In theory, the legislation has helped traditional suppliers of fixed telecommunications services serve existing and potential new customers without competition from local governments. But the public policy choices made by the Florida, Louisiana, and other state legislatures have hurt and will continue to impede first responder access to communications by making it difficult or impossible for cities to deploy on-the-spot wireless broadband communication systems.

New telecommunications options, such as wireless broadband, were among the fastest to rebuild vital communications used by first responders and citizens in the affected regions of the Gulf Coast. WiFi mesh technology will stay up the longest when a catastrophic event occurs—whether a hurricane, a tornado, or a terrorist attack—and can be back up first to aid in the rescue effort. WiFi mesh and other new technologies are far superior to the old way of communicating via wires.

In an environment in which business models, technologies and citizen requirements are changing faster than any one service provider can embrace, our legislative environment should encourage rapid deployment of a full complement of approaches to keeping our citizens well connected, well served, and safe. Of all the states looking at the issue, only the State of Maine seems to really get it. Last year, the Maine Legislature adopted legislation that explicitly confirms that municipalities have the authority to become providers of wireless Internet services. More states should be encouraged to do so. And they should be urged to reject, as the Indiana Legislature has just done, proposals to restrict the ability of local governments to serve their citizens.

Beyond this, Congress should free up additional spectrum, particularly in the highly efficient 700 MHz band. There is a valuable opportunity to expand broadband access in the television "white space," but municipal broadband networks will only get access to it if the Federal Communications Commission completes the proceeding proposing this use. Congress should encourage the Commission to finish the work it has begun and make this unlicensed spectrum available.

Yet we worry that, owing to budget constraints, Congress might go in the wrong direction and actually tax unlicensed spectrum, whether or not it makes more of it available. The Administration's budget, for example, urges Congress to enact a new tax, euphemistically described as a "user fee," on unauctioned spectrum licenses. It is hard to discern precisely what is intended, but at least the White House has publicly said it has no intention of taxing WiFi services that operate in unlicensed spectrum.

And well it should. Unlicensed spectrum has spawned investment and innovation. Taxes kill investment and innovation. In fact, even a nominal tax on WiFi would eviscerate the business models of new broadband entrants. With wireless technology, we are helping stimulate the torrid pace of broadband deployment (300 systems to date in the United States, with 5 million homes expected to be passed by the end of the year). This growth in large part is due to high volume shipments, which in turn are possible because the spectrum is free. So, instead of promoting

broadband, taxing and restricting who can use unlicensed spectrum will choke it and hurt economic growth. We can't afford that as a Nation.

With this in mind, let's rethink our current telecom policies and choose to encourage a wide range of competitors and a true balance between "old" line carriers and new technologies, between licensed and unlicensed spectrum in the United States. As a practical matter, this means enacting laws that encourage municipalities and new entrants to quickly build competing broadband infrastructure and it means ensuring that all competitors can get access to additional unlicensed spectrum.

For that reason, we again urge you to include S. 1294 as part of any legislation that would rewrite the Telecommunications Act of 1996 and to free up (or direct the Federal Communications Commission to make available) additional unlicensed spectrum in the 700 MHz band for use by wireless community broadband networks.

Thank you for your consideration.

PREPARED STATEMENT OF HENRY GARRETT, MAYOR, CITY OF CORPUS CHRISTI, TEXAS

Thank you, Mr. Chairman and Members of the Committee, for the opportunity to share the experience and vision of the City of Corpus Christi, Texas in this proceeding. We applaud the Committee for acknowledging the emerging trend of municipal networks across the Nation (and indeed, the entire world), and we urge the Committee to recognize the importance of continuing to allow—if not encouraging—cities and towns to implement creative solutions to local issues for the benefit of their citizens.

Before turning to the specifics about our City's municipal network project, I believe it is important to view my support for the project and my statements generally against the backdrop of my lifelong involvement in public service: I spent six years in the Airforce Reserves, 26 years as a Corpus Christi Police Officer, six years as Chief of Police, and six years as a City Council Member at Large. My staff and others involved in the day-to-day operation and planning of this project are, like you, public servants first and foremost. Our objective, therefore, is not short-term profit, but rather to meet the public safety, economic development, educational, and other basic needs of the citizens whom we serve. We, like many other public officials around the country who have deployed or intend to deploy municipal networks, view these efforts as public works projects, and approach the issue from a public and long-term viewpoint that is essential to harmonize with the narrower, but dynamic, viewpoint of private investment.

Our initial vision for this project centered on a WiFi-based Automated Meter Reading (AMR) network, with the objectives of reducing costs and lead time, increasing data integrity, improving customer service, and mitigating risks associated with reading utility meters. With these goals, the City commissioned an engineering study in 2003 that showed a positive return on investment realized through labor savings from the elimination of meter readings by municipal personnel. A pilot project to validate the projected returns is completed, and approximately 24 square miles are already under this WiFi cloud, with more than 3,000 automated water and gas meters. The pilot has proved to be very successful, and build out of the remaining 123 square miles is scheduled for completion around August 1 of this year. The City has authorized approximately $7 million for this AMR network.

Our $8 million AMR network investment has given us a network with far more capacity than the meter reading operations require. Accordingly, our vision for the use of the network continues to evolve, and we believe we can use the network to provide myriad benefits to residents and businesses throughout Corpus Christi. As a consequence of this and the evolution of our vision, the City is now in discussions with all city departments, a large number of governmental agencies, and private sector corporations on how they might benefit from and take part in the maintenance, operation, and application support for the network.

On the public safety front, we envision using the WiFi cloud in conjunction with private carrier networks to replace our 800 MHz data system. The City already purchased software that will allow public safety vehicles to seamlessly roam between the WiFi and other networks with data speeds 10 to 150 times faster than the 800 MHz system. This use can be expanded to other City departments at low cost.

The improved data speeds will enable the City to make better use of existing technologies and applications, and will reduce the cost of others. For example:

1. *Public Safety*: The system will enable the transfer of "mug shots" and streaming video to patrol vehicles, and will provide officers access to criminal history and the capability to perform crime analysis in the field.

2. *Public Works and Utilities*: The system will provide in-the-field access to the Work Management and Geographical Information Systems, making a wealth of data available at the fingertips of field crews.

3. *Building Inspections and Code Enforcement*: The system will provide field access and update capabilities for inspectors, reducing time required to build and to take corrective actions.

4. *Lower the cost of the Automated Vehicle Locator System (AVL)*, allowing its use in numerous other departments.

The WiFi cloud will provide invaluable Homeland Security benefits. It will allow us to fortify first responders with video, location information and seamless access to information. It will improve cooperative enforcement and video surveillance efforts between the City and the Port of Corpus Christi, the 5th largest port in the United States. It will also enable cooperative applications with the nearby oil refining community, one of the Nation's largest petroleum areas.

The system will provide numerous other community benefits as well. The technology of WiFi, when deployed on a metropolitan scale, is ideally suited to address the digital divide, and remedy the economic, social, and educational problems that follow when all citizens are not given reasonable access to the Internet. The City and the Corpus Christi Independent School District are actively pursuing implementation of a system that will allow increased parental involvement through the use of the WiFi system, and the City has formed a partnership with members of the information technology industry, various governmental agencies, and a large hospital system to provide a testbed for new, cutting-edge uses of WiFi.

Broadband connectivity is still in its infancy in the U.S., and as a consequence, the foundations for an appropriate governance strategy are not yet firm. We believe that empowering local elected officials and citizens carries with it numerous benefits, including the creative dynamic of local knowledge applied to local situations, public safety innovation, Homeland Security advancement, basic services improvement, opportunities for private service providers, and a guarantee of equal access. In the City of Corpus Christi, we have a clear desire to consider a variety of models of partnership with the private sector, and in fact the City, together with Northrup Grumman, recently received the U.S. Conference of Mayors Award for Excellence in Public/Private Partnerships.

In short, it appears that our vision and our success is limited only by our imagination, and we ask the Committee to recognize the inherent good of continuing to allow, or even encouraging, local public servants to exercise creative approaches to local communications issues.

Thank you for the opportunity to submit these comments, and my staff and I would be pleased to assist the Committee and its staff in any way as you consider these issues.

The following attachments to this prepared statement have been retained in Committee files:

Briefing paper entitled: "The City of Corpus Christi, Texas: A Compelling Case for Municipal Communications Systems."

Resolution of the City Council of the City of Corpus Christi, Texas approving formation of the CC Digital Community Development Corporation, and approving its Articles of Incorporation and Bylaws.

Partnership Prospectus for the City of Corpus Christi Citywide Cellular WiFi Network.

Legal Memorandum prepared by The Baller Herbst Law Group entitled: "Key Legal Issues Affecting Community Broadband Projects."

PREPARED STATEMENT OF EDISON ELECTRIC INSTITUTE (EEI)

Mr. Chairman and Members of the Committee:

Edison Electric Institute (EEI) is pleased to submit this statement for the record to the Committee. EEI is the premier trade association for U.S. shareholder-owned electric companies and serves international affiliates and industry associates worldwide. EEI's members serve 97 percent of the ultimate customers in the shareholder-owned segment of the industry and 71 percent of all electric utility ultimate customers in the Nation.

EEI member companies share a longstanding common commitment to maintaining the safety, security, reliability, and structural integrity of the Nation's critical electric infrastructure, which is essential not only to the electric industry but also

to the cable and communications industries that are attached to it. That is why we have concerns with the "pole attachment" provision [Section 13 (f)(1)] of the "Broadband Investment and Consumer Choice Act" [S. 1504] introduced by Senators Ensign and McCain, which addresses the rates, terms, and conditions for access by third parties to electric utility poles, ducts, conduits, and rights-of-way.

Under current law, cable and telecommunications companies are allowed to attach their wires to utility poles at subsidized rates. S. 1504 would perpetuate—and expand—preferential access rights and subsidized rates that now benefit telecommunications and cable companies, while failing to address critical infrastructure issues caused by increasing numbers of legitimate and illegitimate pole attachments. Not only would the proposed legislation exacerbate an already unfair cost burden on electric utilities and their customers, but it also could threaten the safety, integrity, and reliability of the electric distribution system.

As this Committee considers comprehensive legislation on broadband and other telecommunications matters, it should address important safety and reliability issues associated with the attachment of third-party facilities to utility-owned critical wireline infrastructure and should require all parties to pay a fair share of the costs of that infrastructure.

Background

The Nation's electric distribution systems—including poles, ducts, conduits, and rights-of-way—deliver power along millions of miles of lines to neighborhoods, businesses, and consumers, and are a key part of the Nation's critical energy infrastructure. These facilities were designed and built originally to provide reliable and affordable electricity.

Responsibly sharing utility infrastructure avoids the wasteful duplication of facilities on public or private rights-of-way and reduces costs and other impacts on consumers. Electric and telephone utilities historically have shared their network facilities through mutual "joint use" agreements. Today, electric utilities own and operate the majority of the facilities to which telephone, cable, and other telecommunications companies attach their wires.

The Pole Attachment Act Amendment of 1978 (Section 224) limited the rates utilities could charge cable companies for their attachments to utility poles and other electric distribution facilities. In the 1996 Telecommunications Act, Congress amended Section 224 to require that electric utilities allow nondiscriminatory access at below-cost regulated rates for other entities (except incumbent local phone companies) seeking attachments to poles, ducts, conduits, and rights-of-way. The lowest regulated rates—which cover only a fraction of a fair share of the actual costs associated with establishing and maintaining the poles—are reserved for cable companies, which were seen at the time as "nascent service providers" that needed a subsidy. As a result, for example, an electric utility that averages $80 per pole in annual maintenance and carrying charges is only permitted to recover from a cable TV company less than $6 of the annual costs associated with owning the pole.

Legislation currently pending in Congress would expand the list of entities eligible for mandatory access and require the lowest subsidized cable rates under Section 224 to be available to *all* cable, telecommunications, and broadband providers. S. 1504 would expand Section 224 to benefit all "video service providers, regardless of the nature of the services provided," not just cable television systems as under current law. The result would be a windfall, in the form of subsidized pole attachment rates equal to those already enjoyed by cable TV companies, for incumbent telecommunications companies that now pay negotiated rates for pole attachments.

Ironically, the communications industries that would benefit from preservation and expansion of Federal pole attachment subsidies can hardly be described as "nascent" any longer. Virtually all of the major companies that would reap the benefits of mandatory access and subsidized rates are today listed in the Fortune 500, are worth billions of dollars, and continue to grow through mega-mergers and acquisitions.

Critical Infrastructure Issues Need To Be Addressed

Electric utility poles, ducts, and conduits are key components of the transmission and distribution network that provides our Nation with reliable electric service. This network has long been recognized as a core infrastructure system critical to the Nation's economy and homeland security. Public safety agencies, energy production and delivery companies, financial markets, telecommunications companies, and transportation, health care, water, and sanitation providers all depend on reliable electric and communications services.

Telephone, cable, and other telecommunications companies routinely attach their wires to electric distribution infrastructure. The rapid development of new commu-

nications technologies and the massive increase in demand for communications services, coupled with the numerous competitive entrants seeking to deploy those technologies and provide such services, have dramatically increased the number, size, and weight of communications facilities seeking to attach to the critical infrastructure. This universe of existing and potential pole attachments raises a number of issues.

- Pole attachments affect the structural integrity, safety, security, and reliability of electric distribution infrastructure.
- Pole attachments increase operation and maintenance costs for electric utilities and their customers.
- Pole attachments cause increased susceptibility to damage caused by ice and wind storms and other natural disasters.
- Pole attachments increase restoration times following natural disasters and other emergencies. For example, each additional wire and device attached or strung along a distribution network adds physical stresses (e.g., weight, wind loading, etc.) to the poles, resulting in an extra layer of complexity and risk from the standpoint of reliability, safety, and maintenance. When a pole is damaged by a storm or other catastrophic event, restoring service is more complex. This complexity is further multiplied when thousands of poles in a large utility system need to be replaced after a widespread natural disaster, such as a hurricane, ice storm, or earthquake.

The Nation's electric utilities are fully capable of managing the shared use of their infrastructure to minimize these risks, but they cannot do so effectively in the current regulatory climate, which overemphasizes near-term deployment of telecommunications services to the detriment of the long-term safety, security, reliability, and integrity of the critical wireline infrastructure. For example, under present law and regulation, existing communications wires can be overlashed again and again with additional cables without an engineering evaluation of the ability of the poles to withstand the increased wind or ice loading and without any prior notice to the pole owner. When inventorying pole attachments, electric utilities routinely discover thousands, even tens of thousands, of attachments made to their poles without notice or authorization. These practices create a public safety issue, because the resulting pole loads may not be in compliance with good utility practice or the National Electrical Safety Code (NESC), which is the basic guideline on which most utility engineering standards are based.

Historically, promoting a rapid move to competition—not infrastructure protection—has been the primary policy goal of Federal pole attachment legislation and regulation. Federal legislation enacted in 1978 and 1996 focused almost exclusively on access and subsidized rates for cable television and telecommunications companies. Safety, integrity, and reliability issues important to the protection of critical electric and telecommunications infrastructure to date have not been addressed adequately by Congress or the Federal Communications Commission (FCC).

Competition is an important goal, and indeed some electric utilities plan to provide a competitive "third link" to customers through the deployment of broadband over power line (BPL) technology. But without a safe and reliable electric utility infrastructure, which powers and supports cable and communications networks, even existing competition will be stymied. Pole attachment legislation *must* protect critical wireline infrastructure that supports both electric and communications services by providing for agreements between the parties; certification of the number of attachments; pre-attachment notification; and payment of "make-ready" (e.g., planning, engineering, and construction costs) and fair on-going maintenance costs.

Unfair Cost Subsidies Imposed on Electric Utilities and Their Customers

The Federal approach to pole attachment policy and regulation has focused on mandating access at rates far below fully allocated costs, in order to promote the deployment of new technologies and to foster competition. Unfortunately, that policy has not only undermined the safety, security, reliability, and integrity of the critical wireline infrastructure upon which both electric and communications service depends, but it has unfairly forced electric utility customers to subsidize cable and telecommunications companies.

The cable industry can afford to pay its fair share for maintaining critical electric infrastructure, as can the other communications companies that make up the $1 trillion telecommunications industry. Every user of these facilities should pay its full and fair share of the actual costs of building and safely maintaining the facilities.

Under current law, federally regulated pole attachment rates do not permit utilities to recover all of the costs actually related to supporting and managing such attachments. If pole attachment revenues are not sufficient to cover all costs, the difference is made up from rates paid by electric customers. The result is a subsidy borne by electric utility customers, including low-income customers who do not use the cable or new telecommunications products. Pole attachment revenues offset utility distribution system costs, and thus are not a source of profit for the utility.

The bottom line is that when the Federal Government requires pole attachment rates to be set far below market or even replacement rates, they become a subsidy for the attaching entities, at the expense of utility customers. To expand the FCC's class of entities entitled to subsidized pole attachment rates likely would lead to higher electric rates for electric utility customers in order to benefit large, highly profitable media and telecommunications conglomerates. This is unfair, and distorts critical infrastructure priorities by favoring broadband and video at the expense of electricity service.

Electric utilities also attach their equipment to telephone company poles, for which they pay a negotiated rate. Providing a lower subsidized rate to telecommunications providers would not only abrogate these longstanding reciprocal agreements, but would create a significant disparity in the rates that electric utilities are charged to attach to telecommunications poles versus what telecommunications providers are charged for their attachments to electric utility poles.

Pole attachment legislation should eliminate—not expand—pole attachment subsidies to communications giants now borne by electric customers. The best way to prevent subsidies is to allow the parties to negotiate the rates, terms, and conditions for any attachments. Negotiated agreements, particularly joint use agreements between electric and telephone utilities, should not be abrogated. Regulated rates should apply only where existing agreements have expired according to their terms and the parties are unable to reach agreement, and should be phased in over a reasonable transition period to ensure that electric consumers are held harmless from rate increases. Regulated pole attachment rates should be technology-neutral so that all attaching entities pay the same rate regardless of the technology involved, and also must ensure that all costs of critical wireline infrastructure are shared proportionately among users. When allocating pole attachment costs, Congress should ensure that each entity pays for the space it uses. In addition, each paying entity (including the pole owner) should share equally in the cost of all other space on the pole (including space below ground level).

State Utility Commissions Should Be Allowed an Appropriate Role in Regulating Pole Attachments

State commissions have decades of experience regulating retail electric service, including many rules and standards related to utility poles, ducts, and conduits. State commissions also regulate local telecommunications service.

Unlike nationwide telecommunications and cable services, pole attachments affect local facilities and raise local reliability issues. The safety, integrity, and reliability of this critical wireline infrastructure are largely dependent on local circumstances (e.g., geography, weather) and failures have local consequences (e.g., service interruptions, power outages).

State commissions are well positioned to oversee and regulate these attachments while balancing the electricity and telecommunications policy issues. And, states have proven they are capable of regulating pole attachments. Nineteen states already do so under current law.

States already are responsible for regulating the retail electric facilities subject to Federal pole attachment rules—no Federal agency has a similar role. From their long history of telecommunications and electric utility regulation, states are well prepared to handle all pole attachment issues and appropriately balance the interests of utility customers, telecommunications customers, and the public at large.

At the very least, states should be allowed to continue to regulate pole attachments and should be allowed a greater role in implementing and enforcing uniform pole attachment safety, reliability, engineering, and rate standards, and resolving disputes between utilities and attaching entities. If a state chooses not to regulate pole attachments, the FCC should regulate according to the uniform standards outlined above.

Conclusion

As the threats to the structural integrity of critical wireline infrastructure grow, the electric utility industry believes that it is time to revise the current public policy regarding pole attachments. Instead of forcing electric utility customers to subsidize

the likes of Time Warner, Comcast, Cox, and the former Bell companies, Congress should:

(1) Emphasize the protection of critical wireline infrastructure and public safety, and establish certain fundamental criteria for installing or modifying attachments to critical infrastructure.

(2) Provide for an equitable sharing of the costs associated with the ownership of shared critical infrastructure among those who benefit from its use.

(3) Set minimum notification, certification, and other requirements for gaining access to critical wireline infrastructure.

(4) Allow continued and, where appropriate, expanded jurisdiction over the shared use of local critical infrastructure to the same state agencies that already regulate the safety, reliability, and cost of local electric and communications utility distribution systems and protect electric and communications consumers.

EEI and its member companies appreciate this opportunity to outline our concerns with the pole attachment provisions of S. 1504 and other proposed legislation. We look forward to working with the Members of the Committee on Commerce, Science, and Transportation to address the issues we have raised.

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