HOW INTERNET PROTOCOL-ENABLED SERVICES ARE CHANGING THE FACE OF COMMUNICATIONS: A VIEW FROM GOVERNMENT OFFICIALS

HEARING

BEFORE THE

SUBCOMMITTEE ON TELECOMMUNICATIONS AND THE INTERNET

OF THE

COMMITTEE ON ENERGY AND COMMERCE

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HOW INTERNET PROTOCOL-ENABLED SERVICES ARE CHANGING THE FACE OF COMMUNICATIONS: A VIEW FROM GOVERNMENT OFFICIALS

WEDNESDAY, APRIL 27, 2005

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON TELECOMMUNICATIONS
AND THE INTERNET,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:22 p.m., in room 2322 of the Rayburn House Office Building, Hon. Fred Upton (chairman) presiding.

Members present: Representatives Upton, Stearns, Gillmor, Whitfield, Shimkus, Pickering, Bass, Terry, Blackburn, Markey, Engel, Wynn, Gonzalez, Inslee, Boucher, Gordon, Rush, and Stupak.

Staff present: Howard Waltzman, Chief Counsel; Neil Fried, Counsel; Will Norwind, Policy Coordinator; Jaylyn Jensen, Senior Legislative Analyst; Anh Nguyen, legislative clerk; Johanna Shelton, Telecommunications Counsel; Peter Filon, Counsel; and Alec Gerlach, Staff Assistant.

Mr. UPTON. Sorry about the delays. I think most of you know, we had a series of votes that started right about the time that we were supposed to be here, so I appreciate you all waiting patiently.

Today's hearing is entitled "How Internet Protocol-Enabled Services are Changing the Face of Communications: A View from Government Officials." This hearing is a finale of sorts in a series of hearings that this subcommittee has held in regard to IP-enabled services. Previous hearings have explored how, without a doubt, IP-enabled services are dramatically changing the face of communications.

Many of these hearings have underscored the need for Congress to modernize our communications laws in order to account for this new technology and to ensure its speediest deployment as widely as possible, and bring true intermodable facilities based competition to the American consumer.

At the close of this hearing, it is my intention to get to the business of legislating along those very lines, which brings us to why we are here today. The FCC has held that Internet services are inherently interstate in nature, and that even if there is also an intrastate component, it is not technologically feasible to separate it for purposes of State versus Federal jurisdiction. So Federal ju-

risdiction and the unified Federal broadband policy trumps State jurisdiction.

I have to say that I agree with that approach to creating a Federal policy for IP-enabled voice, video, and data services, and that that will serve as my guiding principle for legislating in this arena. What that means for how we approach the traditional role of State public utility commissions and local franchise authorities in an IP-enabled world is what we will be exploring today.

I want to thank today's distinguished panel of witnesses for being with us this afternoon to help us explore that very important subject, and I will yield to Mr. Gordon for an opening statement.

Mr. GORDON. Thank you, Mr. Chairman, and thanks again for these continuing very informational hearings you are having.

First, let me take just a moment. I would like to recognize a friend from Tennessee, Ms. Debbie Tate. She is the chairman of our Tennessee Regulatory Commission. More importantly, a native of Murfreesboro, Tennessee, often thought of as a dead hole in the universe by many folks.

As we consider legislation to create a Federal framework for regulating IP-enabling services, it is critically important for us to consider what role State and local governments have to play in this new scheme. State and local governments have traditionally implemented and enforced issues such as consumer protection, CLEA, and the 911. While the technology may have changed, consumers and providers will continue to expect full government—local governments to fulfill these functions. I am particularly interested in hearing from the panel on the 911 issue. I am working with my colleague, Chip Pickering, on 911 legislation for IP-based services.

I look forward to hearing from the panel, how they think the States can partner with the Federal Government to make sure that all IP-enabled telephony providers can provide full 911 services as quickly as possible.

I yield back my time. Thank you.

Mr. UPTON. Mr. Stupak for an opening statement.

Mr. STUPAK. Thank you, Mr. Chairman. Thanks for holding this hearing in the series that you have held on—in-depth hearings on the IP-enabled services. I think the committee now has a better understanding of where both the opportunities and challenges lie as we look at the Telecommunications Act.

There are opportunities to update the Act to recognize and promote the promise of IP-enabled services, but we must do so with an eye on rural America, and with an understanding that these services can only go where broadband takes them.

We heard last week that the U.S. has fallen further behind the industrialized world with regard to the deployment of broadband. Yes, new technologies will stimulate demand for and deployment of broadband in the U.S., and yes, regulatory certainty will help with the deployment of broadband as well. But will the market alone get broadband to rural America? I think this is a central question this committee needs to address. We need to draft our telecom laws in a way that embraces these new technologies, while helping all communities become connected to the future.

Broadband is coming to my district by cable, DSL, wireless, and satellites. It is being provided by national companies, locally owned

companies, local governments, and public utilities. For instance, the city of Gladstone in my district, with a population of 5,000, offers wireless broadband. The citizens of Gladstone benefit; so do those who live outside the city in very rural areas. They receive their broadband through a privately owned wireless system that connects to the Gladstone system. Other municipal utilities in my district may soon be offering DSL quality satellite broadband.

Some have suggested that local government should not have the ability to offer broadband, and several states have implemented laws prohibiting it. I look forward to hearing from the witnesses today about what role they think local government should play in broadband deployment.

I am also very interested in hearing from local governments about local franchise agreements for cable providers. We heard at last week's hearing that cable franchise must meet a series of local obligations, and I look forward to hearing from you why these obligations are necessary, especially the build-out requirements.

I look forward to hearing from today's distinguished panel. As this distinguished panel knows, you do very hard, often thankless work, including answering consumer complaints, arbitrating disputes, and maintaining critical infrastructure. There is a reason why the Act gives State and local governments the responsibility they have today, and the committee needs to tread carefully when looking at moving some of the responsibilities to the Federal level.

With that, I will yield back, Mr. Chairman. Thank you.

Mr. UPTON. Thank you.

Mr. Inslee.

Mr. INSLEE. I just want to thank you for being so great at serving the local government. We are Congressmen and we don't have that kind of pull.

Mr. UPTON. Mr. Gonzalez.

Mr. GONZALEZ. Waive opening. Thank you.

Mr. UPTON. Thank you. There are a number of subcommittees that are meeting today. I have talked to a number of members that I know that are going to be coming for this hearing. Again, I apologize it is starting on a delayed basis. But at this point, we are prepared to listen to our witnesses.

[Additional statement submitted for the record follows:]

PREPARED STATEMENT OF HON. JOE BARTON, CHAIRMAN, COMMITTEE ON ENERGY AND COMMERCE

Mr. Chairman, thank you for holding this hearing. During the past several months, this subcommittee has conducted three hearings on how Internet Protocol technology is revolutionizing communications. Today, we will hear from state and local officials, and other interested parties, who hold views regarding the proper distribution of authority over Internet services among federal, state, and local governments.

Given the global reach of the Internet, Internet services are inherently interstate in nature. Even if Internet services have intrastate and interstate components, the FCC has determined that it is not possible to separate those components for jurisdictional purposes. As a result, states cannot regulate Internet services without conflicting with federal policy over the Internet and interstate services.

And a federal policy for Internet services is critical. We cannot expect new entrants to succeed in the Internet market if they have to comply with 52 different jurisdictions, not to mention if they have to comply with rules set by thousands of local franchising authorities.

We need a federal policy with federal rules. There may be a constructive role for States and localities to play in implementing national rules, a role that I hope we

examine fully in this hearing. But the Internet has thrived because it has been largely free from regulation. Burdening the Internet with multiple layers of bureaucracy will slow down its growth and slow down the deployment of innovative new services to consumers.

I look forward to today's testimony, and welcome our witnesses' help in examining the proper distribution of authority over Internet services among federal, state, and local officials.

Today we stand on the threshold of a new age in communications. The 1996 Telecommunications Act served an important purpose, but technology has moved on. This year, one of my high priorities is to update the old act and to do it well. The right approach will invigorate the tech sector and produce jobs, growth and opportunity for its workers. American consumers will get an array of services and choices that were unimagined just a few years ago. I can't wait to get started.

I yield back.

Mr. UPTON. We are joined by a distinguished panel, as all of us have indicated. We will start with the Honorable Lewis Billings, the Mayor of Provo City, Utah. Honorable Ken Fellman, Mayor of Arvada, Colorado, on behalf of the National Association of Telecommunications Officers and Advisors Board of Directors. We will hear from Ms. Diane Munns, Commissioner of the Iowa State Utilities Board. Mr. Charles Davidson, Commissioner of the Florida Public Service Commission. Mr. John Perkins, Iowa Consumer Advocate, President of the National Association of State Utility Consumer Advocates. Mr. David Quam, Director of Federal Relations, the National Governors Association; and Ms. Karen Peltz Strauss, KPS Consulting, on behalf of the Alliance for Public Technology.

I want to start off by saying we appreciate you submitting your testimony in full so we could take it home last night. Your statements are made as part of the record in their entirety, and we would like to limit your remarks now to no more than 5 minutes. And I believe—I think there is a clock. Do you all have—is there a clock that you all see in front of you? No. Well, I have one, so when you hear this, that means your 5 minutes is done, and there is a clock in these lights above that clock that will tick down as well. So we apologize you don't have a clock to see, but I will try to signal you in there. If you can wrap up at that point, that would be terrific.

We will start with you, Mr. Billings. Welcome.

STATEMENTS OF HON. LEWIS K. BILLINGS, MAYOR, PROVO CITY, UTAH; HON. KENNETH FELLMAN, MAYOR, ARVADA, COLORADO, ON BEHALF OF NATIONAL ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS BOARD OF DIRECTORS; DIANE MUNNS, COMMISSIONER, IOWA STATE UTILITIES BOARD, ON BEHALF OF NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS; CHARLES M. DAVIDSON, COMMISSIONER, FLORIDA PUBLIC SERVICE COMMISSION; JOHN R. PERKINS, IOWA CONSUMER ADVOCATE, PRESIDENT, NATIONAL ASSOCIATION OF STATE UTILITY CONSUMER ADVOCATES; DAVID C. QUAM, DIRECTOR, FEDERAL RELATIONS, NATIONAL GOVERNORS ASSOCIATION; AND KAREN PELTZ STRAUSS, KPS CONSULTING, ON BEHALF OF ALLIANCE FOR PUBLIC TECHNOLOGY

Mr. BILLINGS. Thank you, Chairman Upton, members——

Mr. UPTON. Use that mic for everyone, sir.

Mr. BILLINGS. Is that better?

Mr. UPTON. That is much better. Thank you.

Mr. BILLINGS. Thank you, Chairman Upton, members of the subcommittee. As has been said, I am Lewis Billings. I am the Mayor of Provo, Utah. Thank you for the opportunity to appear before you today on behalf of the American Public Power Association, APPA, to discuss the important role public power systems are playing in the deployment of affordable broadband services.

APPA is the national service organization representing the interest of the Nation's more than 2,000 State and community-owned electric utilities that serve over 43 million Americans. The vast majority of these utilities serve communities with populations of 10,000 people or less. Provo is one of APPA's larger members with approximately 33,000 metered customers, and a population of 113,000.

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, many public power systems are meeting the new demands of their communities by providing broadband services where such service is unavailable, inadequate, or too expensive. Over 600 public power systems now provide some kind of advanced communication service, whether for internal or external purposes. This is a 10fold 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. Using technologies such as fiber to the subscriber, hybrid fiber coaxial broadband over power lines, and wireless, 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 two categories. The first is internal service, which is usually a municipal data network that connects municipal governmental entities to each other. As of the end of 2004, 247 public power systems offered municipal data networking.

The second category is external service that is offered to individuals or entities outside of the utility and municipal government. External services include fiber lacing, high speed Internet access, broadband resell, cable television, local and long distance telephoning, and VoIP. As of the end of 2004, 102 systems were providing cable television service, 167 were lacing fiber, 128 were Internet service providers, 42 provided long distance telephone, and 52 provided local phone service. A handful of systems are either providing or testing voice-over Internet protocol service. In addition, public power has been a leader in BPL, with Manassas, Virginia, being the first city in the Nation to provide broadband over the power line service. Based on the success of Manassas' project, other APPA members are now testing that technology, including Hagerstown, Maryland; Princeton, Illinois; and Rochester, Minnesota.

Many communities have decided to provide residents and businesses with critical broadband infrastructure because they recognize the growing importance of broadband for commerce,

healthcare, education, and improved quality of life. Looking to 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.

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 availability of municipalities to provide broadband services. Included with my testimony are the statements of support from such organizations as the High Tech Broadband Coalition, Consumer Federation of America, the Free Press, Educause, and New America Foundation, as well as Intel. The United Tele Council and Fiber to the Home Council also plan to express their support by sending a letter to the subcommittee for inclusion in the record.

The story of Provo's entry into the communications marketplace is similar to those of other municipalities across the country, which my written testimony discusses in more depth. Eight years ago, we undertook a careful study to determine how we could use technology to benefit our residents. After our thorough analysis, we decided we need to reconstruct our traffic control signal systems, make major upgrades to our 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 would be dependent upon our ability to obtain high speed data interconnectivity at various locations throughout our city. As we launched this—is my time up?

Thank you. I will be happy to respond to questions.

[The prepared statement of Lewis K. Billings follows:]

PREPARED STATEMENT OF HON. LEWIS K. BILLINGS, MAYOR, PROVO, UTAH, ON BEHALF OF THE AMERICAN PUBLIC POWER ASSOCIATION

Chairman Upton, Ranking Member Markey, and members of the subcommittee, my name is Lewis Billings, and I am the Mayor of Provo, Utah. Thank you for the opportunity to appear before you today on behalf of the American Public Power Association (APPA) to discuss the important role public power systems are playing in the deployment of affordable broadband services.

APPA is the national service organization representing the interests of the nation's more than 2,000 community-owned electric utilities that serve over 43 million Americans. The 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 utilities 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. Provo is considerably larger than the average public power community, with approximately 33,000 metered customers and a population of 105,166.

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, is inadequate, or too expensive.

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.

My testimony 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, my testimony will discuss the policy justifications for allowing municipalities to meet the needs of their communities by providing affordable broadband services and 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 I address the reasons why community-owned electric utilities are providing broadband services, I 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 and 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 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 anti-competitive 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, 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 it was completed, local schools, small businesses, and others in our community 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. Our 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, Coldwater, Michigan, and Spencer, Iowa are just a few of the systems providing wireless broadband. Provo has also embraced this technology as our businesses and residents see this as an important and expected infrastructure in the community.

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 2004, 247 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 2004, 102 systems were providing cable television service, 167 were leasing fiber, 128 were Internet service providers, 42 provided long-distance telephone, and 52 provided local-phone service. A handful of systems are either providing or testing VoIP service.

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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.

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 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, 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

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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/.

provide broadband services and have publicly expressed so. Included with this testimony are statements of support from such organizations as the High Tech Broadband Coalition, Consumer Federation of America, Free Press, Educause, and New America Foundation as well as Intel. The United Telecom Council and Fiber to the Home Council also plan to express their support by sending a letter to the subcommittee for inclusion in the record.

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 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. This year alone, bills have been introduced in 14 states that would restrict the ability of municipalities to provide advanced services to their communities either directly or in partnership with other private sector providers.[5] In all instances, these measures have been pushed by incumbent telephone and cable companies seeking to eliminate potential competitors.

Early measures pushed by the opponents of municipal broadband advocated prohibiting municipalities 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 subcommittee—the right of first refusal—which was adopted by Pennsylvania late last year. 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 build or upgrade a network that provides the capabilities and services the community wanted.

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-

[5] In 2005, legislation has been introduced in Colorado, Florida, Illinois, Indiana, Iowa, Louisiana, Michigan, Nebraska, Ohio, Oregon, Tennessee, Texas, Virginia and West Virginia. In Virginia and West Virginia, pro-municipal broadband bills were amended to limit the ability of localities to provide service.

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 these claims 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 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 the private sector's.

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 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 the local government that are often higher in amount than what 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% and Verizon paid 3.6%. Florida's municipal electric utilities paid an effective rate of 14.6%.[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 the private providers 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 le-

[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/cgi-bin/printme.pl

[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)).

gitimate 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 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 subcommittee 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.

April 25, 2005

The Honorable Fred Upton
Chairman
Subcommittee on Telecommunications and the Internet
House Committee on Energy and Commerce
2161 Rayburn HOB House Office Building
Washington, DC 20515

Dear Chairman Upton:

On April 27, 2005, the House Subcommittee on Telecom and the Internet is going hold a hearing entitled "How Internet Protocol-Enabled Services Are Changing the Face of Communications: A View from Government Officials." One of the issues to be discussed is the proper role of municipal governments in the promotion of broadband deployment.

I am writing to express Intel's opposition to state laws that prohibit or significantly constrain municipal broadband deployment efforts, as expressed in the accompanying letter that we submitted to the Texas Legislature. As I state in that letter: "Municipalities that determine there is an unmet need can find solutions that are open, transparent and reasonably competitively neutral."

I understand that the American Public Power Association (APPA) is testifying before your Subcommittee in the above referenced hearing. At his request, I am copying Mr. Richardson of APPA on this letter to verify Intel's position on the municipal broadband issue as that may be relevant to his testimony before your Subcommittee.

Sincerely,

/s/ Peter K. Pitsch

Peter K. Pitsch
Communications, Policy Director
Intel Corporation

cc: Alan Richardson
President and CEO, APPA

Support Community Internet and Municipal Broadband

February 22, 2005

To whom it may concern:

The signatories to this letter oppose any state or federal policies that would impose a blanket ban or significant impediment to any city, county or state entity from providing broadband services to their citizens. We call on all states considering such legislation to reject it as harmful to the interests of their citizens.

The President, the Congress, and the Federal Communications Commission (FCC) have all identified the availability of competitive, affordable high-speed Internet broadband access for all Americans as a national priority. The President has set an aggressive goal of 2007 for universal access in the United States. Without the contributions of local governments, it is doubtful that we will achieve universal deployment at all, let alone in two years.

Broadband access has become increasingly essential to economic growth, healthcare, and education. What electric power and telephones were to the 20th Century, broadband access will be to the 21st. Towns that don't have affordable broadband lose jobs. Their children suffer a serious disadvantage in college or in the workforce, where fluency with computers and the Internet is increasingly assumed as a matter of course. Rural towns without broadband cannot take advantage of new breakthroughs in tele-medicine or the economic opportunities created by telecommuting. Even in crowded urban areas, the availability of broadband can vary from one neighborhood to another, stranding one neighborhood on the wrong side of the "digital divide" while two, three or even four broadband providers serve their neighbors.

Municipalities have a valuable role to play in filing this gap. Municipalities have a long history of providing necessary services for citizens and stimulating local businesses. In the 20th century, municipalities built power plants and telephone lines when private services did not move fast enough. Our competitive power and telecom industries today demonstrate that these services by municipalities complement private industry rather than compete with it. In addition, municipalities have a long history of spending money to benefit their citizens and encourage business development. Municipalities across the country have invested public money in convention centers, health clinics, and community colleges not to make money, but to bring business opportunities, healthcare, and education to their citizens. They should have the same opportunity to offer public hotspots and broadband access.

Opponents of municipal broadband have raised the strawman argument of governments monopolizing broadband or discriminating against competing private networks. Every signatory to this letter agrees that federal, state and local policies should encourage deployment of broadband networks in a competitive and technologically neutral manner. The reality has been that local governments only spend money to build systems when they believe a need exists, and that these local systems encourage private companies to deploy and invest in competitive systems.

In conclusion, the question of municipal broadband is one that affects us all as a nation. In the last five years, the United States has fallen from an international leader in broadband to 13th among industrialized nations. Many of the countries that are now ahead of us—Canada, Japan, Korea—have used municipal systems as one important element in their broadband strategy. As a nation, we cannot afford to cut off any successful strategy if we want to remain internationally competitive. Nor should any state stand in the way of local governments serving the needs of local citizens.

Sincerely,

National Organizations

Alliance for Community Media
Association for Community Networking
Center for Creative Voices in Media
Center for Digital Democracy
Common Cause
Consumer Action
Consumer Federation of America
Consumers for Auto Reliability and Safety
Consumers Union
EDUCAUSE
Free Press
Media Access Project
Media Channel
New America Foundation
Office of Communication of United Church of Christ
Prometheus Radio Project
Public Knowledge
US PIRG

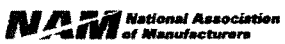
Community Networking Projects

Austin Wireless City Project
Champaign-Urbana Community Wireless Network (CUWiN)
Center for Neighborhood Technology
Detroit Wireless Project
Newbury Open.Net
NYC Wireless

Prominent Regional, State and Local Groups

Akaku: Maui Community TV
Alaska PIRG
Amburgey & Associates, P.C.
Arizona PIRG
Baller Herbst Law Group
Borough of Kutztown
California PIRG
Cape Cod Community Media Center
CCTV Center for Media & Democracy
Chicago Access Network Television
Chicago Consumer Coalition
Chicago Media Action
City of Fairborn - GATV10
City of Geneva, Illinois
Community Access Partners of San Buenaventura
EFF-Austin
F2C: Freedom to Connect
Fiber For Our Future
Florida Municipal Electric Association
Florida PIRG
Georgia PIRG
Get Illinois Online
Illinois Community Technology Consortium
Illinois Municipal Utilities Association
Iowa Association of Municipal Utilities
Lafayette Pro Fiber
Lowell Telecommunications Corporation
Malden Access TV
Mass PIRG
Massachusetts Consumers' Coalition
Media Alliance
Mountain Area Information Network
North Carolina Consumers Council, Inc.
PA-Fiber
Penn PIRG
PIRG in Michigan
Public Access Corporation of DC
Public News Service
Reclaim the Media
SCAN Community Media
The Peoples Channel 8
Vermont PIRG
Virginia Citizens Consumer Council
WCCA TV 13 "The People's Channel"

HIGH TECH BROADBAND COALITION



31-MARCH-2005

POLICY POSITION ON MUNICIPAL BROADBAND NETWORKS

The High Tech Broadband Coalition ("HTBC") is an industry alliance formed by the leading trade associations of the computer, telecommunications equipment, semiconductor, consumer electronic, software, and manufacturing sectors in the United States. The six trade associations that comprise HTBC – the Business Software Alliance, the Consumer Electronics Association, the Information Technology Industry Council, the National Association of Manufacturers, the Semiconductor Industry Association, and the Telecommunications Industry Association – represent more than 12,000 corporations engaged in all aspects of the high-technology industry. Continued success of HTBC member companies increasingly depends upon consumer adoption of broadband.[1]

HTBC has been a strong proponent of ubiquitous broadband deployment. HTBC believes that the overwhelming majority of such deployment will come from private sector investment. HTBC has been a leader in advocating policies that remove regulatory barriers to private sector investment in new broadband facilities. History has shown that competitive markets using private capital provide the best services for consumers. However, governmental entities, pursuant to their mandate to advance or protect the public interest and public safety, may identify broadband needs that are best met through some form of governmental action or partnership with the private sector.

Nationwide, municipalities are considering ways to promote broadband networks in their communities with these goals in mind. Often, these municipal efforts are intended to complement wireline and cable networks by extending reach to areas that these incumbent networks do not, or cannot, reach. A number of promising cooperative efforts between municipalities and multiple private sector partners already exist and are underway. While legitimate concerns have been raised about municipal involvement, municipalities can and should find solutions that are open, transparent, and reasonably competitively neutral.

Because circumstances vary across municipalities, there is no one-size-fits-all prescription. Accordingly, no statewide statutory barriers to municipal participation, whether explicit or de facto, should be erected. Some municipalities may find private sector partners able to provide all of their services. Others may find private partners able to provide some,

[1] Appendix (attached) provides detailed description of the six trade associations that comprise HTBC.

but not all, of the services they require. Still others – because of their small size, remote location, or other unique characteristics – may not find any private sector partners able to make the business case to provide their required services. The key and overarching principle is that municipalities, to the extent practical, should use open, competitively neutral processes to determine the private sector involvement and maintain those principles throughout the network's operational life.

This approach gives municipalities the flexibility to address their particular circumstances. Because competitive circumstances vary greatly, what is practical will also vary. But this approach also admonishes municipalities to use open, transparent processes that will give ample opportunity for all stakeholders to be heard and will encourage the maximum practical private sector involvement. Many acceptable implementations of this approach are possible and, in fact, are being demonstrated in the marketplace voluntarily.

As a general guideline, however, municipalities should first assess unmet needs, underserved areas, and future requirements, as well as develop a technology-neutral requirements document. This process might involve working with private-sector consulting firms. A vendor-neutral evaluation process would then determine the best-suited technology, capabilities, and providers. In keeping with competitive neutrality, new private sector entrants, established firms with existing facilities, and out-of-region established firms would be free to bid on the service provision and network operational requirements as they see fit. Also, municipal efforts would not get preferred access to rights-of-way or other favored treatment.

In summary, HTBC opposes state laws that erect explicit or de facto barriers to municipal participation. Municipalities must be allowed to pursue broadband network solutions, and private sector firms must not be foreclosed from choosing to invest in and partner with municipalities. A framework of open processes and reasonable competitive neutrality allows all stakeholders to be heard. Reasonable examples are already being demonstrated in the marketplace voluntarily and without statutory mandates. We believe such a framework can encourage public-private partnerships that advance the goal of making affordable and high quality broadband available to all Americans.

APPENDIX

HIGH TECH BROADBAND COALITION

The six trade associations that comprise HTBC are:

a. The **Business Software Alliance** ("BSA") is an international organization representing leading software and e-commerce developers in 65 countries around the world.

b. The **Consumer Electronics Association** ("CEA") is the preeminent trade association promoting growth in the consumer technology industry through technology policy, events, research, promotion and the fostering of business and strategic relationships. CEA represents more than 2,000 corporate members involved in the design, development, manufacturing, distribution and integration of audio, video, mobile electronics, wireless and landline communications, information technology, home networking, multimedia and accessory products, as well as related services that are sold through consumer channels. Combined, CEA's members account for more than $113 billion in annual sales.

c. The **Information Technology Industry Council** ("ITI") is an elite group of 31 of the world's leading providers of information technology products and services, including computer, networking, data storage, communications, and Internet equipment, software, and services. ITI helps member companies achieve their policy objectives through building relationships with Members of Congress, Administration officials, and foreign governments; organizing industry-wide consensus on policy issues; and working to enact tech-friendly government policies.

d. The **National Association of Manufacturers** ("NAM") is the largest United States industrial trade association, with more than 12,000 members and 350 member associations in every industrial sector and all 50 States.

e. The **Semiconductor Industry Association** ("SIA") is the premier trade association representing the $100 billion United States microchip industry. SIA member companies account for more than ninety percent of United States-based semiconductor production.

f. The **Telecommunications Industry Association** ("TIA") is the leading trade association serving the communications and information technology industry, with proven strengths in standards development, domestic and international public policy, and trade shows. Through its worldwide activities, TIA facilitates business development opportunities and a competitive market environment. The association also provides a forum for its over 600 member companies, the manufacturers and suppliers of products, and services used in global communications.

While its members each serve as a major force for advocating the public policy objectives of their own members, HTBC was established to highlight their common interest in, and to ensure sustained advocacy for, public policies that promote broadband deployment and competition.

Mr. UPTON. Man, if everyone was that responsive, that would be terrific. Thank you. You went a little bit long, but it was good. Thank you. Again, your full statement is part of the record.

Mr. Fellman.

STATEMENT OF KENNETH FELLMAN

Mr. FELLMAN. Thank you, Chairman Upton, Ranking Member Markey, members of the subcommittee. Thank you for the opportunity to testify this afternoon.

I am the mayor of Arvada, Colorado, a city of 104,000 people located just outside of Denver, and I appear today as a representative of the Nation's local elected leaders and their advisors. Because many local elected officials serve with little or no compensation, I have another job as well. In my professional capacity, I am an attorney and I work with local governments on a wide variety of communications and other issues.

I am also here today, like you, as an elected official who looks at new technology with a great deal of excitement, and one whose constituents and businesses want more choices at lower prices. And like all of you, I am seeking the best balance for our citizens, our economy, and our local communities.

Today, on behalf of local governments, I ask this committee for three things.

First, recognize the inherent police powers of local government, and its right to manage and charge for the use of public rights of way.

Second, please take a deliberative approach as you consider the appropriate scheme for addressing IP services, and ensure that any new regulatory regime recognizes the core social obligations of our service providers.

And third, appreciate the unique neighborhood-by-neighborhood expertise that local government has to oversee these social obligations, which include public safety, broadband deployment, and preventing economic red-lining.

Additionally, because I know this committee has heard some negative characterizations of the franchising process, I draw the committee's attention to the detailed written testimony which we believe demonstrates a more accurate representation.

We support a technology neutral approach that promotes broadband deployment and competitive service offerings. But Internet innovations are meaningless if the networks used to deliver them are not widely available to our citizens. As technology improves, most of the infrastructure for these new services resides in the public rights of way. Local officials must ensure that the infrastructure does not interfere with other infrastructure, is safe, and we must preserve fair opportunities for all competitors who use the rights of way. As fiduciaries, we must make sure that the public is compensated when private actors use public land.

To exercise our core police powers, local government must manage the right of way, and we thank Chairman Barton for his historic work in support of the existing Section 253, which preserves local authority and control over the public rights of way.

We believe that Federalization of all IP services would not serve the public interest, and would violate the principle of technology

neutrality. It would create disparate treatment of entities, solely on the nature of the services provided. Functionally equivalent services that compete with one another in the eyes of consumers should face the same government obligations. Local governments want to ensure that we can continue to require that social obligations of providers be met, and that consumers be protected.

There are several important obligations of today's video providers that are enforced at the local level. These include access channels, institutional networks, and prohibitions on economic redlining. Many Members of Congress are frequent guests or hosts on cable access channels. Congressman Markey is, Congresswoman Myrick is, my own Congressman, Bob Oprey, has his show appearing on access channels in Colorado's seventh district. Access programming serves a vital role in our communities. Institutional networks provide redundancy in terms of emergencies. For example, in New York City's network remained operational during the events of September 11, 2001. And as this committee has noted, prohibitions on economic redlining are critical to ensure all citizens will benefit from competition.

Finally, I would like to briefly explain the current franchising process, which unfortunately, is misunderstood by many. Cable franchising is essentially a light touch national regulatory framework with local implementation. The Cable Act authorizes local governments to negotiate for a relatively limited range of obligations imposed upon cable operators, and virtually none of those obligations are mandatory. The framework for economic regulation of video providers utilizes that light touch economic regulation that the telephone companies seek. And while the current economic regulation is limited, it still plays an important consumer protection role. Recently, it disclosed a $5 million overcharge by one cable operator.

My written testimony covers franchising in more detail.

In conclusion, we believe that any new national communications policy should preserve local government's authority to ensure public health, safety, and welfare, allow us to support important policy goals, enable us to address our communities' communications needs. What this means is that we are asking you to preserve our local control and management of the public rights of way, and the ability to impose and collect taxes and fees necessary to fund essential services. Please take a deliberate approach, even as you seek to update economic rules, and do not eliminate the core social obligations of video programmers, regardless of the technologies they use. We urge you to appreciate and preserve the neighborhood-by-neighborhood expertise that local government brings to overseeing these social obligations, like public safety, broadband deployment, and the prohibition of economic redlining.

And I thank you, and look forward to answering your questions.

[The prepared statement of Kenneth Fellman follows:]

PREPARED STATEMENT OF HON. KENNETH FELLMAN, MAYOR, ARVADA, COLORADO ON BEHALF OF THE NATIONAL ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS, THE NATIONAL LEAGUE OF CITIES, THE UNITED STATES CONFERENCE OF MAYORS, AND THE NATIONAL ASSOCIATION OF COUNTIES

Chairman Upton, Ranking Member Markey, and members of the subcommittee.

Thank you for the opportunity to testify this afternoon. I am the Mayor of Arvada Colorado, a municipality incorporated in 1904, and the site of Colorado's first documented gold strike. We have a population of approximately 104,000, and are located on the northwest side of Denver. I appear today as a representative of local elected leaders and their technical advisors. I play a key role in several national organizations representing local government interests and speak today on behalf of National Association of Telecommunications Officers and Advisors ("NATOA"), the National League of Cities ("NLC"), the United States Conference of Mayors ("USCM") and the National Association of Counties ("NACo").[1]

I have the great pleasure today of being authorized to speak here on behalf of all of these prestigious organizations that represent thousands of local elected officials and their advisors throughout the country. I am also here today, like you, as an elected official who looks at new technology with a great deal of excitement. Like you, every day I hear from my constituents who want more choices for communications services with a full range of competitive prices. Like you, I hear from small, medium and large businesses that want to receive communications products and services to enable them to remain competitive or to offer more products and services to their customers. Like you, I hear from my first responders that they lack some essential communications tools to protect public safety. Like you, I hear the concerns of citizens who want technology to improve their interaction with their elected officials and their government. Like many businesses, local governments are significant and sophisticated users of telecommunications technology. And, like all of you, I am seeking the best balance for our citizens, our economy, and our local communities.

Because many local elected officials serve with little or no compensation, I have another job as well. In my professional capacity I am an attorney, and I work with local governments nationally on a wide variety of communications and other issues.

Local governments embrace the technological innovation that this Committee has been hearing about over the last several months. We want and welcome real communications competition in video, telephone and broadband services. And, I am here to commit that we support a technology-neutral approach that promotes broadband deployment and competitive service offerings. Local governments have been managing communications competition for many years now (it is not new. What is exciting is the presence of a few well-funded and dominant players who appear to have finally made a commitment to competition in the video arena. We look forward to developing an even more successful relationship in bringing these competitive services home to America.

I also want to emphasize at the outset the close working relationship and shared views among the national organizations representing local and state government. The local organizations I represent today have been working together with the National Governors Association and National Association of Regulatory Utility Commissioners and are unified in our support of the principles of state and local authority, public safety, universal access to telecommunications, use of public property and rights-of-way, consumer protection, competition and taxation. State and local governments' interests are closely aligned on the topics that NGA and NARUC will cover today, particularly in the area of universal service, access to E911, public safety and CALEA. And, as you've heard (or will hear) from Mayor Billings today on behalf of the public power community, we stand in support of the ability of local governments to serve their constituents' needs and interests by self-provisioning, especially at times when the traditional industry providers are unwilling or unable to do so.

LOCAL GOVERNMENT ASKS THREE THINGS OF CONGRESS

Today, on behalf of local government, I ask this Committee for three things. First, recognize the inherent police powers of local government including its right to manage and charge for the use of public right-of-way. Second, take a deliberative approach as you consider the appropriate scheme for addressing IP services which recognizes the core social obligations of service providers. And third, appreciate the neighborhood-by-neighborhood expertise local government brings to overseeing these

[1] Mayor Fellman is a member of the NATOA Board, and Chair of its Convergence Committee; Chair of the Information Technology and Communications Steering and Advocacy Committee of the National League of Cities and as such represents NLC at the NGA-led tax negotiations; Vice Chair of the Communications Task Force and a member of the Communications and Transportation Standing Committee of the U.S. Conference of Mayors; Local Elected Official Member of the Department of Homeland Security's SAFECOM Executive Committee; Former Chair of Local State Government Advisory Committee to the FCC; and a practicing attorney representing local governments.

social obligations, including public safety, broadband deployment, and prohibiting economic redlining.

THE USE OF INTERNET PROTOCOL TO DELIVER SERVICES

Internet protocol was developed almost 40 years ago, at the time the original Internet was being developed. Its use today to deliver data, telephone and video, is something that has evolved and improved over time, and is now so prevalent as to warrant congressional attention. The promise of competitive services being delivered through the use of IP is exciting and challenging—it's just not necessarily new. The communications tools we use every day have all evolved under the careful eye of federal, state and local governments, as should the communications tools of the future. These Internet innovations are meaningless if the networks used to deliver them are not widely available to all of our citizens. Deployment of the infrastructure used to deliver these services is of specific interest and concern to those of us who manage the physical property where this infrastructure resides and will be installed. This is why local government has long promoted the efficient and effective deployment of infrastructure within and through our communities.

LOCAL GOVERNMENT HELPS ENSURE BROADBAND DEPLOYMENT

We all share the concern of a lack of broadband access throughout America, in urban and rural areas alike. Regardless of the locality, it is likely that communications technologies will be a driving force in the economic opportunities enjoyed by the communities that have access to advanced services. I believe that the Cable Act has provided significant benefits to consumers and communities alike, and I believe that local government should be applauded for ensuring those benefits were provided in a timely, fair and efficient manner. Under the current regulatory regime, cable enjoys the highest deployment rate of broadband in this nation, with over 105 million homes having access to cable modem service. The cable industry is now reaping the economic benefits of an infrastructure that is capable of providing broadband access to all of our citizens. It is local government's oversight and diligence, through the franchise process, that has ensured that our constituents are not deprived of these services. Local government is the only entity that can adequately monitor and ensure rapid, safe and efficient deployment of these new technologies when they are being installed on a neighborhood-by-neighborhood level in our local rights-of-way.

MANAGEMENT OF THE PHYSICAL RIGHT-OF-WAY IS A CORE FUNCTION OF LOCAL GOVERNMENT

Even as technologies change, certain things remain the same. A central fact remains' most of the infrastructure being installed or improved for the provision of these new services resides in the public right-of-way. Elected officials are the trustees of public property and must manage it for the benefit of all. We play a critical role in promoting competition by ensuring that all competitors have fair access to needed physical space and ensure they do not interfere with each other. In addition, we impose important public safety controls to ensure that communications uses are compatible with water, gas, and electric infrastructure also in the right-of-way. Keeping track of each street and sidewalk and working to ensure that installation of new facilities do not cause gas leaks, electrical outages, and water main breaks are among the core police powers of local government. And while it seems obvious, these facilities are located over, under or adjacent to property whose primary use is the efficient and safe movement of traffic. It is local government that best manages these competing interests. In any reform of the current law, it is vital that our property rights and interests in the management and control of the public rights-of-way are respected and preserved.

TO PROPERLY EXERCISE ITS FIDUCIARY OBLIGATIONS, GOVERNMENT MUST HAVE THE RIGHT TO OBTAIN COMPENSATION FOR PUBLIC PROPERTY USED FOR PRIVATE GAIN

At the same time that we manage the public right-of-way, local government, acting as trustees on behalf of our constituents, must ensure the community is appropriately compensated for use of the public space. In the same way that we charge rent when private companies use a public building to make a profit, and the federal government auctions spectrum for the use of public airwaves or requires compensation when communications towers are located on federal lands, we ensure that the public's assets are not wasted by charging reasonable compensation for use of the right-of-way. Local government has the right to require payment of just and reason-

able compensation for the private use of this public property—and our ability to continue to charge rent as a landlord over our tenants must be protected and preserved.

SOCIAL OBLIGATIONS REMAIN CRITICAL REGARDLESS OF TECHNOLOGICAL INNOVATION

Communications companies are nothing if not innovative. When you think back over the course of just the past 100 years, the changes in technology are mind-boggling. At the same time, the social obligations developed over the last 60 years have endured. I strongly urge the Committee to engage in a deliberative process, and take the time necessary to engage in dialogue and debate, to ensure that any legislative changes adopted this year will be as meaningful 20 years from now as two years from now.

While last year some questioned the need for any regulation of Voice over Internet Protocol services, this year the Committee heard the chilling story of a family who could not use E911 to reach the police on their VoIP phone while a gunman prowled their home. The Committee's understanding of the need for regulations has evolved based on experience with the technology and careful study and deliberation. The same careful study and deliberation is needed with respect to video services. Local government believes that federalization of all IP services would not serve the public interest, and would violate the principle of technology neutrality. Such action would create disparate treatment of entities premised solely upon the nature of the service being provided, and create an entirely new form of regulatory arbitrage. Rather, we believe that like services should be treated alike and certainly services that compete with one another in the eyes of the consumer should face the same government obligations. Local governments want to ensure that we can continue to require that social obligations of providers be met, and that consumers are protected.

CONGRESS MUST TAKE THE TIME TO CONSIDER THE NEW SOCIAL OBLIGATIONS IN AN IP WORLD

In the past, we have determined that those who use public property for private commercial purposes have an obligation to the "public interest" in exchange for this privilege. As a result, a sort of social contract has evolved with each such entity, based on the particular service or technology being utilized. For voice, we recognize that E911, universal service, law enforcement access through CALEA, are social obligations to be required of companies providing voice services. As consideration for the otherwise free use of the public spectrum, broadcasters are obligated to serve their communities' interests and to provide critical safety of life information on demand. For direct broadcast satellite, there is payment for the use of the spectrum and a public interest set-aside of 4% of capacity. For video, a public interest set aside designates capacity for community channels, institutional networks and a requirement to pay rent for the use of the public's property. Compliance with these obligations is not appropriately left to the marketplace.

HISTORICAL AND CURRENT ROLE OF SOCIAL OBLIGATIONS

Thus, I welcome this opportunity to discuss with you the important social obligations inherent in current video regulation, and to explain why these core functions must be preserved, no matter the technology used to provide them. These include the allocation of capacity for the provision of public, education and government access channels, prohibitions on economic redlining, and a basic obligation that local government evaluates and the provider meets the needs of the community, including public safety needs.

PEG Channels

Historically and today, locally produced video programming performs an important civic function by providing essential local news and information. Under the existing law, local government can require that a certain amount of cable system capacity and financial support for that capacity be set aside for the local community's use. This capacity is most often used in the form of channels carried on the cable system and are referred to as PEG for public, educational and governmental channels. Once the local franchise authority has established the required number of channels and amount of financial support required to meet community needs, they then determine the nature of the use, which may be mixed between any of the three categories. Public channels are set aside for the public and are most often run by a free-standing non-profit entity. Educational channels are typically reserved for and are managed by various educational institutions. Government channels allow citizens to view city and county council meetings, and watch a wide variety of programming about their local community that would otherwise never be offered on commercial or public television. Whether it is video coverage of the governmental

meetings, information about government services or special programs, school lunch menus, homework assignments or classroom instruction, the video programming used to disseminate this information allows all of us to better serve and interact with our constituents. Government continues to make innovative uses of this programming capacity as new interactive technology allows even better information to be available to our constituents.

But this is information that many of you know quite personally—for instance Congressman Markey has appeared many times as a featured guest on access programming on a regular basis throughout the State of Massachusetts. And many other members, including Representative Dingell, represent communities whose PEG programming has won national acclaim. And my own Congressman Bob Beauprez has his own show "Washington Report" distributed on many of the government access channels throughout Colorado's 7th Congressional District. Many of you and your peers use this vital resource as a means to report back and to interact with your constituents at home. Local and state officials also use this important medium, and we want to ensure that it continues to be available now and in the future.

It may be possible that through deliberative processes such as this hearing, we will identify new technological opportunities to assist us in our outreach to our citizens, but I suggest to the Committee today that these public interest obligations continue to serve an important purpose and must be preserved, regardless of the technology that allows us to make the programming available. I hope that you'll join with me in calling for the continuation of such opportunities in the new technologies that are evolving today. Certainly I should hope that you would not follow the tantalizing concept of reducing obligations on providers without careful consideration.

Economic Redlining

One of the primary interests of local government is to ensure that services provided over the cable system are made available to all residential subscribers in a reasonable period of time. These franchise obligations are minimal in light of the significant economic benefits that inure to these businesses making private use of public property. While there may be those who find this provision unreasonable—we find it to be essential. Those who are least likely to be served, as a result of their economic status, are those who we need most to protect. This deployment helps to ensure that our citizens, young and old alike, are provided the best opportunities to enjoy the highest quality of life—regardless of income. The capacity that broadband deployment offers to our communities is the ability of an urban teen to become enriched by distance education opportunities that until recently couldn't possibly capture and maintain the interest of a teen (much less many adults). And, that's just the beginning—the possibilities are endless, as is the creativity of those in local government on making the most they can with the least they have.

Public Safety & Community Needs

Local leaders often focus on the needs of their first responders when evaluating community needs. The current law provides that local governments may require the development of institutional networks as part of the grant of a franchise. This network is specifically for the purpose of serving non-residential areas such as government facilities including police, fire, schools, libraries and other government buildings. This infrastructure is typically designed to use state of art technology for data, voice, video and other advanced communications services. It has proven effective not only for day to day training and operations—but essential in emergencies, including the events of September 11, 2001.

For example, the City of New York uses an INET for distance learning among city educational institutions, for city-wide computer network connectivity, for criminal justice applications (video arraignments), for employee training including first responder training, and for ensuring redundant intelligent communications capabilities for all of its police, fire and first responder needs. This network is constantly being improved upon, but functioned in many important capacities during the losses suffered on September 11, 2001. This network not only offers capacity for the city all year round, but redundancy in times of an emergency.

Again, many Members of Congress live in communities that have required the deployment of these services, and are planning and using this infrastructure and the services to protect and serve the needs of their citizens. For instance the communities of Palo Alto, California, Marquette, Michigan, Laredo, Texas and Fairfax County, Virginia are all examples where the local government has determined that use of an institutional network is in the best interests of their community.

NEITHER FRANCHISING, NOR CURRENT REGULATION, IS A BARRIER TO COMPETITION

The concept of franchising is to manage and facilitate in an orderly and timely fashion the use of property. For local governments, this is true regardless of whether we are franchising for the provision of gas or electric service, or whether we are providing for multiple competing communications services—all of which use public property. As the franchisor—we have a fiduciary responsibility that we take seriously, and for which we are held accountable.

I began my testimony commiserating with you about constituent demands for better services at competitive prices. As you are no doubt aware, our constituents demand real competition to increase their options and improve the quality of services. As you know, a GAO study showed that in markets where there is a wire-line based competitor to cable that cable rates were, on average, 15% lower.— Please understand that local governments are under plenty of pressure every day to get these agreements in place and not just from the companies seeking to offer service. I know this committee has heard some unflattering descriptions of the franchise process. I would like to discuss with you the reality of that process.

Franchising is a National Framework with an Essential Local Component

Franchising is essentially a light touch national regulatory framework with local implementation. The 1992 Cable Act authorizes local governments to negotiate for a relatively limited range of obligations that are imposed upon cable operators. Virtually none of these obligations are mandatory. Each one is subject to decision-making at a local level. The current legal structure provides for something I hope we would all agree is important in this nation—local decisions about local community needs are made locally. While some communities will require significant capacity for education, government and public channels or INET use, others will seek little or none. The ideologies and the values of each local community guide their elected leaders.

And, in many cases, even where the state has determined that a state-wide franchise process is appropriate, they require the local community and the provider to work out the details, consistent with the state guidelines. This is because a one-size fits all approach is not the most efficient or reasonable means of achieving deployment of communications services. Moreover, a one-size fits all approach can penalize communities with differing needs. For example, no one would claim that the community of Ann Arbor, MI needs the exact same services as Detroit or Kalamazoo, or Mackinaw City in the Upper Peninsula. Neither would impose on the other each other's desires—and yet, both should have the ability to ascertain their individual needs and work with the providers accordingly. Further, in some states where home rule has been adopted, the state doesn't have the authority to address these issues, as that authority resides at the local level.

Local Franchising is Comparatively Efficient, and Must Be Fair to Protect All Competitors

Franchising need not be a complex or time-consuming process. In some communities the operator brings a proposed agreement to the government based on either the existing incumbent's agreement or a request for proposals, and with little negotiation at all an agreement can be adopted. In other communities, where the elected officials have reason to do so, a community needs assessment is conducted to ascertain exactly what an acceptable proposal should include. Once that determination is made, it's up to the operator to demonstrate that they can provide the services needed over the course of the agreement.

Furthermore, while some of the new entrants have asserted that franchise negotiations have not proceeded as fast as they would like, it is important to recognize that every negotiation has two parties at the table. Some new entrants have proposed franchise agreements that violate the current state or federal law and open local franchise authorities to liability for unfair treatment of the incumbent cable operator vis-à-vis new providers. Some also seek waiver of police powers as a standard term of their agreement. Local government can no more waive its police powers to a private entity than the federal government can waive the constitutional rights its citizens.

As far as I know, everywhere that Verizon has applied for a franchise it insists that the community use Verizon's own model franchise, without regard to the terms and conditions of the community's incumbent franchise agreement. In other words, Verizon is seeking unilaterally to impose its own very aggressive nationwide franchise on all local communities. While Verizon may have the right to attempt such an approach, it can't fairly complain about delays resulting from its own, self-interested negotiating strategy. Rather, if Verizon would simply work from the community's existing franchises that actually reflect the community's needs and interests,

I believe they'd find it much faster and easier to obtain a franchise agreement. And I can speak from personal experience that this is what Qwest is doing in Colorado, and the franchise negotiating process has been both easy and timely. Unlike other business contracts that are confidential or proprietary, local government franchise agreements are readily available as public record documents, so a new provider knows the terms of the incumbent's agreement well before they approach a local government about a competitive franchise.

Many states have level playing field statutes, and even more cable franchises contain these provisions as contractual obligations on the local government. So when a new provider comes in and seeks a competitive cable franchise, there is not much to negotiate about. If the new competitor is seriously committed to providing as high a quality of service as the incumbent, the franchise negotiations will be neither complicated nor unreasonably time consuming. Indeed, I recently negotiated a competitive cable franchise for the City of Lone Tree, Colorado. Qwest Broadband sought a franchise to provide competitive video programming through its fiber to the home architecture. Because Lone Tree has an existing cable franchise with Comcast, and the City cannot grant a competitive franchise that on the whole is more favorable to the new entrant, we had a very short and relatively simple negotiation.

Moreover, local government has absolutely no desire to make new entrants change their current network topologies to meet the cable infrastructure design. Local government's most significant concern is that it treat all providers fairly, as required by current franchising agreements and by federal law.

Franchising Provides for Reasonable Deployment Schedules

Nothing in franchising or current federal law requires a new video entrant to deploy to an entire community immediately. Local government has been negotiating franchise agreements with new entrants for many years. In these cases, greenfield developments may have one schedule while existing areas are built out over a period of time ranging from eighteen months to five years. These same standards apply when an incumbent provider is seeking a renewal and needs to upgrade the capacity of its system to provide new services.

By managing the deployment as we do, we protect the incumbent's investment in existing infrastructure, we protect the public from unnecessary disruption to private business and to their safe use and enjoyment of the public right-of-way, and we ensure that new entrants are provided with unfettered access in a reasonable and timely fashion, while ensuring that they comply with all safety requirements. This system has worked well for cable, traditional phone and other providers for many years, and is necessarily performed by the local government. Congressmen Barton and Stupak successfully fought to maintain the federalist, decentralized partnership that has served our country well for 200 years when they authored the provisions of the Act which preserve to local government this authority. We trust that under their continued leadership and guidance these important principles of federalism will be maintained.

The Current Framework Safeguards Against Abuse and Protects Competition

The current framework ensures that all competitors face the same obligations and receive the same benefits, ensuring a fair playing field. Federal safeguards protect against abuse. Local government is generally prohibited from requiring a provider to use any particular technology or infrastructure such as demanding fiber or coaxial cable. They can require that certain minimum technical standards be adhered to and that systems are installed in a safe and efficient manner. Local government ensures compliance with the National Electric Safety Code to protect against threat of electrocution or other property damage. Local rules can also require that signal quality be up to federal standards, and that systems are maintained to provide subscribers with state of the art transmissions. Similarly, it is local government that inspects the physical plant and ensures compliance on all aspects of operations. We work closely with our federal partners and cable operators to ensure that cable signal leaks are quickly repaired before there is disruption or interference with air traffic safety or with other public safety uses of spectrum.

Current Law Provides Light Touch Economic Regulation for Cable Services

While there may be limited regulation of cable rates on the books today, telephone companies should celebrate entering the cable business, which utilizes the light touch economic regulation they seek. That regulation, which is employed in relatively few communities, is now purely a consumer protection tool to retard abuse of overcharging on basic service and equipment. As limited as the current regime is, a recent review of one company's national FCC rate filing disclosed overcharges in the amount of $5 million in equipment charges in one year to the one million subscribers covered by the review. While the regulations may be minimal, their use

in protecting subscribers should not be lightly tossed aside—and the role of the local government in uncovering and prosecuting such protections should be applauded, not undermined.

Finally, where cable operators are subject to effective competition, currently defined as 15% DBS penetration, they can use a very simple process to petition the FCC to remove themselves from the extremely limited rate regulation currently in place. While we do not think that the current standard contained in the law and enforced by the FCC is adequate, nonetheless, Title VI does not impose anything like the regulatory structure applied to telephone services.

CONCLUSION

Local government is enthusiastic about the benefits that Internet protocol may offer our constituents. We strongly support competition, the rollout of new services, and the economic growth that accompanies new technological developments. The history of the Communications Act is in some ways, a success story. In a dynamically changing world of technology, the Act has restrained monopoly power, extended services, required socially responsible actions by providers and supported the fundamental democratic and economic underpinnings of our democracy. Certainly the importance of choice, competition and opportunity of our citizens demands a well conceived and thoughtful deliberative process, and not a rush to cure an illness that is yet unproven.

We also believe that any new national communications policy should preserve local government's authority to ensure public health, safety and welfare; allow local governments to support important policy goals as described here; and enable local governments to serve its community's communications needs. What this means is that we are here today asking you to preserve our police powers, our ability to control and manage of our rights-of-way, and our ability to impose and collect taxes and fees necessary to fund our essential services. We ask that you continue to support our goals of enhanced economic development through the use of new technologies, competitive access to products and services and the assurances that all of our citizens and businesses will be provided the opportunity to participate in this technological revolution. We ask that you remember the important social obligations that fall uniquely on the shoulders of local governments to provide for homeland security and emergency communications services to and for our citizens. To facilitate our communications with our citizens we seek legislation that authorizes locally adopted capacity requirements on new communications technologies. Finally, while others will speak more specifically to this point, we support the ability of local government and the citizens they serve to have self determination of their communications needs and infrastructure. Where markets fail or providers refuse, local governments must have the ability to ensure that all of our citizens are served, even when it means that we have to do it ourselves.

In our rush to embrace technological innovation, we, as elected leaders, are deeply cognizant of our responsibility to ensure that the citizens of our communities are protected and public resources are preserved. We engage in deliberative processes, such as this hearing today, to be sure that we are accumulating verifiable data and are making informed decisions. Local control and oversight has served us well in the past and should not be tossed out simply as the "old way." This year as the discussion of the delivery of services over the Internet includes not just voice but video and other potential services, I strongly encourage this Committee to proceed carefully. The Committee should continue to continue its excellent work thus far of accumulating information and ensuring a strong record in support of any decisions to change to the law.

Thank you. I look forward to answering any questions you may have.

Mr. UPTON. Thank you very much.

Ms. Munns.

STATEMENT OF DIANE MUNNS

Ms. MUNNS. Thank you. Mr. Chairman——

Mr. UPTON. I think you have to hit that button.

Ms. MUNNS. Technology. Mr. Chairman, Ranking Member Markey, and members of the subcommittee, thank you for the opportunity to testify today. My name is Diane Munns and I am the President of the National Association of Regulatory Utility Commissioners. NARUC represents State public utility commissions in

all 50 States and U.S. territories, with oversight over telecommunications, electricity, gas, water, and other utilities.

Since the Telecommunications Act of 1996, the Federal and State governments have been involved in a cooperative effort to bring local competition to markets. There have been dramatic technological changes that have strained in the interstate distinctions on which regulations have been based. The State commission tasks have also changed from primarily economic regulators to facilitating wholesale markets and local competition.

With the changes in technology, we are being asked "What is the function and relevancy of State commissions in today's telecommunications market? Is there any role or need for State regulation? And won't 50 different regulatory bodies with authority over new services impede rather than enhance the delivery of services?" These are fair questions as we must continually ask whether government oversight or regulation is necessary, and second, what level of government stands in the best position to deliver value?

We believe the States have core competencies that are necessary in this new world. State commissions excel at delivering responsive consumer protection, assessing market power, setting just and reasonable rates with markup power, and providing fact-based arbitration and adjudication. States are also laboratories of democracy for encouraging the availability of new services and fashioning workable remedies for abuses and market failures.

State experiments are often the basis for Federal policy. While competitive new technology, such as Voice-over Internet Protocol, are hesitant to be classified as telecommunications service providers because of regulatory requirements, in order to do business and compete against incumbent services, many seek the rights that that classification confers: guarantees of non-discrimination, interconnection rights to the public switch network, rights to interconnect for e911 delivery, local number portability, access to pole attachments, receipts of universal service funds. While the rights are granted under a national framework, enforcement of the rights requires a fact-intensive adjudicatory capability, and State commissions offer a timely, cost effective forum for resolution of these disputes. The State of Maryland handled 40 interconnection and intercarrier disputes last year alone.

Consumer issues is another area where State capabilities are relevant. No one disputes that State commissions or that level of government stands in the best position to answer complaints or inquiries about service. Our citizens call us, not Washington, for information. If services do not meet expectations, or when a new abuse arises, we know first. The debate goes to the discretion that States should have to fashion consumer protections outside a Federal framework or outside laws of general applicability. Companies rightfully argue that different requirements cause transaction costs that impede competition. For example, different bill formats raise prices and do not bring additional value to customers. They argue for national standards with no discretion at the State level.

I would like to raise the other side of the issue and use the example of slamming and cramming. After passage of the 1996 Act, the new, unprecedented practice of slamming and cramming began. States were first aware as their customer hotlines became loaded

with complaints. States began to experiment with remedies for these abuses, which eventually resulted in a national approach. This practice is under control today, but the answer to consumers had been, we must seek a rule at the Federal level before we can act, or act through general consumer protection rules, many more people would have been harmed individually and it would have taken much longer to control this abuse. Confidence in competitive processes would also have been harmed. Just last week, my commission successfully addressed a novel cable modem hijacking complaint.

In addition, sometimes raising issues through State processes spurs voluntary industry solutions where if hands were tied while a lengthy Federal process ensued, incentives to find solutions would be significantly reduced. Finally, some issues are local and do not need national attention.

We need to have discussions on processes that can be used so States can effectively protect consumers, while not creating a patchwork of requirements that slow down competitive offerings and offer no value to consumers.

We look forward to continuing this dialog, and are hopeful that the benefits of these new technologies will bring our States and believe practical pragmatic regulation must be employed at each level of government to achieve that end.

Thank you.

[The prepared statement of Diane Munns follows:]

PREPARED STATEMENT OF HON. DIANE MUNNS, COMMISSIONER, IOWA UTILITIES BOARD AND PRESIDENT, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

Mr. Chairman, Ranking Member Markey and members of the Subcommittee, thank you for the opportunity to testify today on behalf of the National Association of Regulatory Utility Commissioners (NARUC). NARUC represents State public utility commissions in all 50 states and the US territories, with oversight over telecommunications, electricity, gas, water and other utilities.

Just like the members of this Subcommittee, NARUC's members are continually seeking the best solutions to the policy issues that impact our nation's evolving telecommunications markets. While there is significant diversity of opinion and thought among State commissioners, my testimony today is intended to present the consensus positions that have emerged from NARUC's internal discussions and also highlight the challenges we face together as Federal and State policymakers seeking to protect consumers, facilitate competition, promote universal service and otherwise encourage a reliable, dynamic, effective communications system for the 21st Century.

Legislative principles and federalism:

In response to congressional interest in reexamining the Telecom Act, NARUC formed a Telecom Legislative Task Force in 2004 and approved a resolution at our February 2005 meeting suggesting key features we believe any revision of the Act should include:

- Promote innovative platforms, applications and services in a technology-neutral manner;
- Consider the relative interests and abilities of the State and federal governments when assigning regulatory functions.
- Preserve the States' particular abilities to ensure their core public interests;
- Preserve customer access to the content of their choice without interference by the service provider;
- Ensure timely resolution of policy issues important to consumers and the market;
- Protect the interests of low income, high cost areas, and customers with special needs;
- Provide responsive and effective consumer protection; and

- Focus regulation only on those markets where there is an identified market failure.

An area of particular concern has been the evolving nature of federalism. While telephone customers have been making calls across state lines since at least 1884, the role of State commissions has evolved over time to match the structure of the market and the needs of consumers. For many decades, a primary State commission task was to restrain the market power of a single national phone company (presumably with many centralized functions) by holding down local rates, preventing harmful cross-subsidies and requiring equitable build-out of facilities. More recently, States played a central role in facilitating wholesale markets for incumbent phone loops and other essential facilities for local competition, and developed sophisticated consumer hotlines to provide a human voice and individual attention to frustrated consumers.

As the communications market shifts again, NARUC has explored a pragmatic analysis that looks to the core competencies of agencies at each level of government—state, local and federal. While some State oversight roles will undoubtedly diminish where local competition grows, others will remain essential, especially as large parts of the market, including VOIP, still seek access to the Public-Switched Telephone Network (PSTN). In many cases, State jurisdiction need not rely on a readily separable "intrastate" component of a service. For example, effective consumer protection depends largely on where the consumer is domiciled, regardless of whether calls are placed to in-state or out-of-state destinations. Requests to interconnect depend on where the relevant facilities are located. Requests to receive universal service funds or to be designated as an Eligible Telecom Carrier ("ETC") for such funds depend on the geographic study area where service will be provided.

Ultimately, decisions about jurisdiction and oversight should be linked not to the particular technology used, but to the salient features of a particular service, such as whether it is competitive and how consumers and small businesses depend on it. States commissions excel at delivering responsive consumer protection, assessing market power, setting just and reasonable rates for carriers with market power, providing fact-based arbitration and adjudication. States are also the "laboratories of democracy" for encouraging availability of new services and meeting policy challenges at the grassroots level. An effective, pragmatic approach to federalism, in the IP world or otherwise, should recognize those strengths.

Consumer protection:

Even in an IP world, consumers will hesitate to depend solely on faraway federal agencies for consumer protection when they encounter disputes or frustrations with their service provider. State commissions operate sophisticated consumer hotlines that handle tens of thousands of consumer complaints every year, providing a live human voice on the other end of the line and individualized assistance each time there is a problem. In many case, our representatives need only provide an explanation to address a consumer's concerns, letting them know what "SLC" stands for on their bill or explaining an E911 assessment's purpose. Failing that, a State commission can mediate with the carrier or, if necessary, adjudicate a dispute.

Because we are on the proverbial front lines by handling so many complaints, State commissions are often the first to hear about new abuses or particular business practices that distress consumers. Effective consumer protection requires the authority and the flexibility to address those concerns as they arise. This was the case with "slamming" and "cramming" on phone bills, which first became an issue at the State level and eventually became the subject of federal rules. A recent internal survey of NARUC's Consumer Affairs Committee revealed that State commissions in just 20 states handled over 233,000 complaints in 2004.

In some cases, VOIP services could actually raise new issues. For example if a customer of an unaffiliated VOIP provider experiences a service outage, and the VOIP provider and broadband provider are pointing fingers at each other, who will sort it out? The FCC is ill-equipped to remedy individual service outages and the customer is hardly in the position to solve it herself. State commissions have handled similar provisioning issues between CLECs and ILECs for years.

Emergency dialing—911 and E-911:

As more families replace their traditional phones with VOIP service to take advantage of the pricing advantages and features, it is particularly important to make sure these services include reliable emergency dialing functionality that will route calls to the nearest Public Safety Answering Point (PSAP), indicate the caller's location and allow the 911 operator to call back if the call is disconnected. Such services should also be subject to the fees that support the modern PSAP network, especially

as PSAPs undertake massive technology upgrades to accommodate IP and wireless services.

Unfortunately, thanks to a series of legal challenges and the FCC's ruling last year in the Vonage petition, there is currently no requirement for VOIP services to provide a 911 or E911 solution, and the right of VOIP services to interconnect to PSAP trunk lines is unclear. NARUC is encouraged by the progress that VON Coalition members and other VOIP providers have shown in beginning to provide 911 functionality, and we are engaged with both the industry and the public safety community in clearing away obstacles to a ubiquitous E911 deployment.

Ultimately, the appropriate regulatory treatment and classification should allow VOIP providers to avail themselves of the interconnection and arbitration procedures in Section 252 of the Telecom Act, with timely arbitration and reasonable pricing of those network elements necessary to provide E911 service, such as access to the selective router and appropriate databases.

The future of competition:

When Congress considered VOIP legislation in 2004, many suggested that competition oversight was unnecessary wherever Internet Protocol was used, averring that to broadband providers, "a bit is a bit." Unfortunately, the opposite proved true earlier this year when Madison River Communications deliberately blocked ports for customers of Vonage Holdings Corporation. The March 2, 2005 issue of Internet Week quoted Vonage CEO Jeffrey Citron as saying that:

> "The advanced features of network analyzers already allow administrators to look not only at what types of packets are traversing their networks, but into the actual content of the packets."

Far from anonymizing competing providers, IP technologies may actually increase the ability to discriminate against particular traffic, or favor a partner's bits over those of an unaffiliated provider. While the FCC acted quickly with an enforcement action and a consent agreement with Madison River, such redress was only available because the company was offering a DSL service, and would not necessarily be available for a cable modem provider. In fact, if DSL is ultimately classified as an information service, such remedies will become even weaker.

Many of us are putting high hopes on all these new technologies and services to bring fresh competition to telecommunications. At the same time, the industry is experiencing a breathtaking run of mergers, with firms like AT&T and MCI—once bastions of local competition—now being absorbed by the Baby Bells they competed against, and there is significant consolidation in the wireless and cable industries as well. With so much restructuring, market power could increase in some geographic markets, even as it decreases in others. State commissions have extensive expertise in assessing market power in a local basis, providing relief where appropriate but able to reimpose oversight in the event of "backsliding."

If there is one thing we know, it is that the communications landscape of ten years from now will look vastly different than today's. Broadband connections might become commoditized as consumers seek their voice and other value-add services from unaffiliated firms like Vonage, Pulver, Skype and Microsoft, or those same providers could find themselves squeezed out by facilities-owners' "bundles" that include voice as a no-cost fringe benefit. Wireless broadband technologies might democratize the last mile and eliminate the traditional barriers to competition, or we could be left with a powerful duopoly that new entrants are hard pressed to compete against. And even as affluent early adopters flock to sophisticated new services, many consumers will continue to prefer a simple, basic phone connection that is not a part of any "bundled" package.

In all of this, it falls to policymakers not to forecast the next wave of innovation but to look out for consumers and set fair rules of the road that foster competition and allow the market to allocate resources efficiently. Our task is to be both optimistic and vigilant, letting innovation take its course, but demanding that our constituents are protected. While competitive VOIP companies are hesitant to be classified as "telecom service" providers, many are seeking the rights that Title II of the Telecom Act confers on telecom services:

- Guarantees of non-discrimination;
- Interconnection rights to the PSTN;
- Rights to interconnect to PSTN trunk lines to Public Safety Answering Points (PSAPs);
- Access to NANP telephone numbering resources;
- Local number portability;
- Access to pole attachments and rights-of-way; and
- Receipt of Universal Service Funds.

Many of these rights are adjudicated or otherwise facilitated by State commissions. In fact, if VOIP providers are unable to avail themselves of the State commission arbitration procedures of Section 252 of the Telecom Act, they will actually have inferior rights to those of their traditional competitors.

Universal service:

Voice over IP services also benefit from our nation's ubiquitous phone network supported by State and Federal universal service programs over the past several years. As a general matter, the only VOIP services that fetch a fee in the markeplace are those that exchange traffic with the PSTN—the ones that don't are usually free. In other words, at least in today's market, the majority of VOIP services are really offering a new way to call and be called by the traditional PSTN phones that most of us still use. That is why NARUC supports a broad and equitable contribution base to state and federal universal service programs so all service providers that rely on a ubiquitous telecom network—including VOIP providers—help maintain the universality of the network, with a similar spectrum of services at comparable rates in urban and rural areas.

State commissions help administer the federal USF, by designating Eligible Telecommunications Carriers (ETC) in each state, by regulating the cost recovery of many rural carriers that depend heavily on universal service, and by offering policy input through the Federal-State Joint Board on Universal Service. About 24 states also run their own intrastate universal service funds, addressing about $2 billion in high cost, low income and other needs that would otherwise be short-changed by federal formulas, or that simply don't require the *interstate* transfers that the federal USF was created to accommodate. Any universal service reform should either preserve those State funds or find a way to make consumers in those 24 states whole. By limiting the fees to customers domiciled in a particular state, a State fund can localize both the burden and the benefits, as opposed to further burdening customers in Mississippi or Arkansas to meet needs in California or New York.

Intercarrier compensation:

VOIP services must also pay their fair share, just as all other carriers do, when exchanging traffic with the PSTN. NARUC supports efforts to develop a rational, technology-neutral intercarrier compensation system that includes all carriers, including VOIP providers, avoids regulatory arbitrage and allows carriers to recover an appropriate portion of network costs. At the same time, State commissions should retain a role in this process reflecting their unique insight as well as substantial discretion in developing retail rates for carriers of last resort. NARUC is leading an intensive dialogue among the states and with the industry stakeholders to seek a consensus solution.

Video over IP

Because ten State commissions have jurisdiction over cable franchising, NARUC is in the process of examining the appropriate regulatory treatment of the IP video offerings by SBC and Verizon. As a legal matter, the individual State commissions will make determinations about whether those services must comply with Title VI franchising requirements as appropriate. As a policy matter in the context of federal legislation, NARUC members will go back to first principles, as we have with Voice over IP, and examine how to encourage innovation while preserving core public interests.

Conclusion:

We look forward to the continuing dialogue with the members of this Subcommittee, with federal regulators and with all the stakeholders about the future of telecom regulation. I am happy to answer any questions from membrs of the Subcommittee.

Mr. UPTON. Thank you. Mr. Davidson.

STATEMENT OF CHARLES M. DAVIDSON

Mr. DAVIDSON. Thank you, Chairman, Ranking Member Markey, representatives. It is an honor to be here today, and I appreciate the opportunity.

During these discussions, you often hear that the 1996 Act was a failure and it needs to be reformed. I don't think it should be viewed as such. Congress should be proud of the 1996 Act and stand behind what it did. Competition is here. It may be outside

the context of the ILEC versus CLEC competition anticipated, but it is here.

But for the 1996 Act, we might not have seen DSL come off the Bell's shelves as quickly as it did. We might not have seen the tremendous investment in the cable infrastructure that we have seen. We might not be the beneficiaries of probably the most robust, dynamic, competitive wireless network in the world.

The 1996 Act had a purpose and many positive effects, but the world in 2005 is very different from the world even in 2000. Just since 2000, the telecom sector, as you know, has lost some $2 trillion in market capitalization, and hundreds of thousands of jobs. Other platforms are aggressively competing with wire line for market share. Estimates are that by 2006, cable captures 7 percent of wire line customers, and 20 percent over the next decade. On the flip side, traditional telecoms have a very real potential to compete with cable and the delivery of video. All of this is great news for consumers and all of this might not have occurred but for the Act.

Getting the model right going forward is critically important to the economic and social advancement of the Nation. One, it is important to both—it is important to help the telecom sector recover, and it is also important to encourage these new entrants to come into the market and deliver their services and invest in these new technologies for consumers. Regulatory reform means jobs. The wireless industry generates more than $9 million a year in payrolls. We need to patent that formula, somehow. Getting the model right means billions of dollars in new capital spending and new choices for customers. Getting the policy right means a stronger America.

In deregulating VoIP in Florida and in providing that broadband shall not be subject to a patchwork of local government regulations, Florida is hoping that Brighthouse Cable will compete with Verizon in the voice segment, and that Verizon will compete with Brighthouse in the video segment. This competition that we hope for in this building out of networks is extremely capital intensive. Cable has invested some $95 billion in the past decade to build out its networks. Verizon is currently spending over $60 million in 1 year alone to build out fiber networks to bring video to customers in Florida. Wireless has invested some $175 billion in its networked, and reinvests, as CTI estimates, about $20 billion a year for upgrades.

We need a new regulatory paradigm. The current model is focused on the wire line market, on the ILEC versus CLEC debate. The rules distinguish between telecom and everything else. Existing rules that served a very valid purpose when the market was just telecom and the providers were just the phone companies doesn't work in this new market.

In crafting sort of a new regime, the first question that often arises is "What are the respective roles of State and Federal Government?" I respectfully submit that this is not the first question to ask. Far more often than I hear the question of "How do we maximize consumer welfare? How do we bring these new technologies to customers?" I hear the question "How do we make sure States continue to have a role in regulating these issues?" States

will have a role. They should have a role. But our first concern ought to be bringing these new technologies to customers.

Chairman Upton, despite Michigan beating Florida in the broadband survey, and despite Michigan actually kicking the Gators' tail a few weeks ago in lacrosse, you represent——

Mr. UPTON. We won a big ballgame against Florida.

Mr. DAVIDSON. I am leaving that out.

But you represent me as a citizen of the United States. Representative Stearns represents me. Representative Markey, you represent me. We are not just a loose coalition of States; we are a Nation with sort of a shared interest in economic and social advancement. And just like with the airlines industry or the shipping industry or the railroad industry, we truly need a national policy.

Some of the core ingredients that ought to be included in that national policy, a clear and simple quid pro quo, an articulation of what a social contract is to provide certainty to market participants, and a clear benchmark for regulators. A straightforward social pact might be, if you use North American numbering resources, for example, you are going to be subject to certain obligations. It doesn't matter whether you are pure VoIP, cable telephony, wire line, wireless. If you use a North American number, you are going to have to meet certain social obligations. That keeps the model platform agnostic, and everyone clearly knows, okay, if we go get a number, we are going to have this universal service commit, we are going to have an inter-carrier comp issue, we are going to have to provide 911. There are certain things we do.

We also need a truly national set of rules to govern terms and conditions of service. A patchwork of potentially 50 different State rules in this emerging IP market will deter some entrants from entering the market, and it will also cost a lot of money for folks already in the market to comply with those rules. States have a lot of good ideas. Let us nationalize those ideas and bring them forward at a Federal level.

And finally, one final point, if I may, tax reform. The sectors that are driving the economy are being taxed at double-digit rates. Let us put some of this money back in the hands of consumers. Let us do something to create jobs and encourage investment and innovation.

Thank you, Chairman.

[The prepared statement of Charles M. Davidson follows:]

PREPARED STATEMENT OF CHARLES M. DAVIDSON, COMMISSIONER, FLORIDA PUBLIC SERVICE COMMISSION

I. INTRODUCTION

Thank you, Mr. Chairman, for inviting me here to testify. I am a Commissioner at the Florida Public Service Commission, the agency with regulatory jurisdiction over Florida's investor-owned telephone, electric, natural gas, and water utilities. My comments here today are those of an individual Commissioner. I am also before you as a consumer who has not had telephone service for over a year. I use a wireless phone, VoIP service over my cable modem, Blackberry data service and wireless broadband when traveling—but I have no telephone.

I would like to thank the Committee for its ongoing efforts to ensure that consumers in Florida and across the country benefit from policies to promote the development and deployment of advanced communications technologies. I would also like to thank the Florida delegation represented on this Committee for its consultation

with the Florida Commission on energy and communication issues important to the State of Florida.

Under the leadership of Governor Bush and the Florida Legislature, Florida leads the nation in policies focused on bringing new technologies to all Floridians. Florida was the first state in the nation to provide that VoIP shall not be subject to regulation. Florida was the first state in the nation to provide that broadband, regardless of the provider or platform, would not be subject to a patchwork of local government regulations. As a result of forward looking policies, companies like Vonage as well as cable companies are competing with established telecom providers for a share of the voice market. On the video side, Verizon is gearing up to compete with cable though its build out of a robust video over fiber network in central Florida. Competition is occurring in Florida, and it is occurring outside of "the regulated space."

II. THE 1996 ACT: INSIDE AND OUTSIDE THE REGULATED SPACE

A. The Traditional Telecom Sector

The U.S. Chamber of Commerce recently reported on the state of the wireline telephony sector. From March 2000 to July 2004, market capitalization in the telecom sector plummeted from $1,135 billion to $375 billion (a 67% decline). The communications equipment-manufacturing sector experienced a 74% decline in market capitalization (from $1,282 billion to $338 billion) for the same period.[1] Some 380,500 jobs were lost between March 2001 and May 2004 in telecom service, Internet service, and equipment manufacturing.[2] The Yankee Group projects that U.S. landline revenue will fall from $63.2 million in 2004 to $47.4 million in 2008.[3]

B. Innovation, Investment and Competition Outside the Box

Other sectors are flourishing under the regulatory policies established by Congress. The extent of innovation and investment "outside the box" is perhaps best demonstrated by the success of the wireless industry. The industry has, for example: invested more than $174 billion (1983 to 2004) in wireless networks and reinvested some $20 billion annually for upgrades and expansions;[4] directly employed 226,016 people as of December 2004 and generated more than $9 billion in annual payrolls;[5] and increased subscribership to over 182 million while reducing per minute prices.[6]

While occurring outside the ILEC vs. CLEC competition envisioned by the 1996 Act, competition is occurring. Research firm IDC predicts, for example, that by 2009, some 27 million consumers will subscribe to VoIP.[7]

Cable is competing with traditional wireline telephony. Raymond James reported that Wall Street "expects between 1.5 million and 2.5 million cable telephony net adds by the public MSOs in 2005.[8] Goldman Sachs estimates that telephone companies could lose 7% of residential lines to cable by 2006, and nearly 20% in the next 10 years.[9] Another estimate is that more than half of all 110 million households in the U.S. will have the option of getting phone service from their cable companies by the end of 2006 and that by 2008, cable companies will be selling phone service to 17.5 million subscribers.[10]

Wireless is also competing with wireline telephony. According to the FCC's September 2004 report, the number of mobile wireless subscribers nationwide has grown 5% since 2002, with subscribership at 54% of the U.S. population as of December 31, 2003.[11] In contrast, local exchange companies saw a 6.1 million drop in access lines nationwide in 2003.[12] According to a 2004 study issued by In-Stat/MDR, 14.4% of U.S. consumers currently use a wireless telephone as their primary telephone. Of the remaining 85.6%, 26.4% of those would consider replacing their wireline telephone with wireless service. In-Stat/MDR predicts that by 2008, nearly a third of all U.S. wireless subscribers will no longer have a landline in their homes.[13]

Wireless is also competing for a share of the enterprise market. In a recent In-Stat survey of more than 300 mid-size businesses and large enterprises, nearly ¼th of respondents stated that their firm had already deployed wireless VoIP. Approximately ⅓rd of the respondents indicated that their firm was planning or evaluating the implementation of the technology within the next six to 12 months.[14]

Internet-enabled communications are also competing with traditional voice. A 2003 J.D. Power and Associates study found that among high-speed Internet users, instant messaging displaced 20% of local calls, and email displaced 24% of such calls. Among dial-up Internet users, the study concluded that instant messaging displaced 18% of local calls, and email displaced 23% of local calls.[15]

III. THE BENEFITS AND COSTS OF BROADBAND

A. The Importance of Broadband

Broadband is critically important to the economic well being of the country—and of the states. Like with many states, Florida's economic and social development—including its skills and job training, education and health care services,[16] and the recruitment and retention of businesses—is increasingly linked to an advanced communications infrastructure.

In their seminal study, Crandall and Jackson conclude that ubiquitous adoption of current generation technologies would generate some $63.6 billion in capital expenditures over the next 19 years.[17] They further estimate a cumulative increase in GDP of $179.7 billion and an additional 61,000 jobs created. The impact of more advanced technologies, such as fiber to the home, would generate an additional net $82.8 billion in capital spending ($4.34 billion per year) for a total of $146.4 billion in new capital spending over 19 years, which would result in a total of 140,000 new jobs. Broadband enabled activities have the potential to spur new rounds in capital spending (on research, development, and deployment) and consumer spending (on content, software and applications, and devices).

B. Bringing Broadband to Consumers Takes Capital

Realization of broadband's full economic potential will require billions in additional up-front investments in technology, networks, and deployment. To upgrade systems and make cable broadband service more widely available to homes passed by its network, cable operators have invested almost $95 billion between 1996, when cable pricing was deregulated, and 2004.[18] ILECs are responding to FCC rulings that new build would not have to be unbundled or shared with competitors by making significant investments in fiber. For example, Verizon states that is spending an estimated $3 billion on fiber deployment in 2004 and 2005. In 2004 alone, Verizon announced that it was spending $60 million to deliver fiber technology to customers in Florida.[19] Additionally, SBC has recently announced that it is accelerating its fiber deployment and plans to invest approximately $4 billion to $6 billion to deploy some 38,800 miles of fiber to reach 19 million homes by the end of 2007.[20]

Estimates by research firms on the potential for additional broadband investment are abundant. For example, one such estimate by InStat concludes that a $3 billion investment would be necessary to deploy a WiMAX-based network that reaches 98% of U.S. homes.[21]

C. Florida's Focus on Promoting Competition

Florida is promoting the deployment of new technologies in the state. In addition to not regulating wireless carriers,[22] Florida was the first state in the nation to deregulate VoIP.[23] The Legislature also freed broadband and information services generally from a potential patchwork of local government regulation that could hinder its deployment.[24]

Currently, the Florida Legislature is considering companion bills in the House and Senate[25] to further promote advanced communications technologies in the state. If ultimately enacted into law, the legislation would expressly:

- Encourage consistency with federal law.
- Exempt broadband services, regardless of the provider, platform or protocol, from state commission jurisdiction.
- Ensure that emerging technologies like VoIP, while not subject to traditional regulation, are "subject to [Florida's] generally applicable business regulation and deceptive trade practices and consumer protection laws, as enforced by the appropriate state authority [or in court]."

Floridians are the beneficiaries. For example, over 20 wireless competitors serve over 10 million Florida subscribers,[26] and 77% of Floridians have a choice of five or more wireless carriers. Wireless carriers employed 13,893 Floridians in 2003. VoIP providers, including Vonage, AT&T, and Bright House Networks are competing with traditional telecommunications providers. In terms of broadband access, Florida had over 1.76 million high-speed lines in service to residences and small businesses by December 2003—up from 254,000 lines just three years prior.[27] In 2004, Verizon began deploying fiber to the premises (FTTP) technology. Verizon plans to pass more than 100,000 Florida homes and small businesses, and is set to launch its first television services on its new FTTP network this year.[28]

Florida's approach provides a model worthy of consideration at the national level. In exempting new technologies from old regulation, Florida has paved the road for delivering new technologies to consumers. At the same time, providers of new tech-

nologies remain subject to the state's aggressive, generally applicable consumer protection regime.

IV. A NEW, NATIONAL POLICY FRAMEWORK IS NEEDED

Policymakers should avoid casting the issue as one of states' rights versus federal preemption. State and federal policymakers are pursuing the same core goal—that being to promote investment in the development and deployment of broadband infrastructure.

At a time when some states are focused on harnessing the benefits of competitive new technologies for its consumers, other states are attempting to burden the new technologies with old rules designed to forge competition in the monopolized wireline telephony market. Fifty states with potentially fifty different regulatory policies will not further that goal.[29] A new, national policy is needed to both (a) help the telecom sector recover[30] and (b) ensure that consumers reap the benefits of advanced technologies.

A. IP Challenges the Existing Regulatory Regime

Current telecommunications regulation has its genesis in the economic regulation of monopoly providers of wireline telephony. Economic regulation acts as a proxy for competition. The 1996 Act intended to spur competition by encouraging CLEC market entry. The regulatory approach is fundamentally grounded in a wireline paradigm, presupposes that the relevant market is local telephony, and is focused on the terms/conditions of market access. Consumer choice is a function of the ILEC vs. CLEC competition. The Act is not focused on other categories of competitors or technologies that may be competing with traditional telephony.

Further, under existing law, classification of a service as "telecommunications" or "information" is critical in that it determines the rights and obligations to which a provider will be subjected. In the IP world, the line between "telecommunications services" and "information services" is murky at best. VoIP represents the convergence of voice and information. Some would force IP-enabled voice services into the "telecommunications" service box or some similar definition under state law. In doing so, they are seeking to preserve a regulatory model that is increasingly obsolete and that was not intended to encompass such technologies.

Uncertainty as to the regulatory treatment of IP-enabled technologies, and efforts to pigeonhole new technologies into old regulatory constructs, will serve primarily to delay the development and deployment of these technologies for consumers.

B. Rationales for a National Policy Framework

1. Intent of the 1996 Act

A national policy framework for IP-enabled services (and broadband generally) is fundamentally consistent with (if not required by) the Telecommunications Act of 1996, which was designed "to provide for a *pro-competitive, de-regulatory national policy framework* designed to accelerate rapidly private sector deployment of advanced telecommunications and information technology and services . . .").[31]

2. Interstate Nature of the Market

IP-enabled technologies and platforms exist and function without regard to state boundaries and as part of a national (indeed, global) communications infrastructure. Such technologies are "borderless" in nature. Unlike with the circuit-switched network, which developed within states and then between states, traffic over an IP network does not follow any prescribed geographic path. IP traffic cannot be readily defined as within the jurisdiction of states.[32] The interstate nature of IP-enabled services and the need to avoid a patchwork of potentially fifty different state policies argue strongly for regulation at the national level.

1. Costs for Consumers of a State-Centric Approach[33]

National regulation of IP-enabled services would provide greater regulatory certainty than would a patchwork of fifty potentially different state policies. An industry that faces potentially divergent or unknown regulatory regimes would have less of an incentive to invest risk capital than would an industry facing a more uniform, predictable national policy. With Congressional assurances of regulatory clarity, VoIP providers would likely be more willing to expand services, even in states like California that are considered riskier regulatory environments

A patchwork of various state regulations all aimed at the same service would likely result in additional costs to the consumer. If 10 of the 50 states each have good (but different) ideas for regulation and each of those 10 good approaches would cost on average $2M for the providers to comply, the overall costs of service would increase. This additional level of state regulation would have resulted in $20M in additional

regulatory costs that will, in a competitive market, be socialized amongst the customers of the services. The costs of state specific regulation by Florida, California and New York would likely be borne by consumers in every jurisdiction represented in Congress.

C. Core Components of a National Policy

1. No Economic Regulation

Economic regulation is a proxy for competition. It includes the regulation of prices and of other terms and conditions of service that would otherwise be determined by the market. While economic regulation of monopoly providers of a service is certainly warranted, such regulation is a certain disincentive to investment in competitive markets. Unlike the market for wireline telephony in 1996, the market for IP-enabled services is competitive. Even in the face of regulatory uncertainty, IP-enabled technologies are spurring robust price and service competition from a host of established firms and new entrants alike—and this competition is occurring across platforms. Consumers have far more choices than existed 5 years ago.

2. Focus on Social Regulation

While IP-enabled technologies should not be subject to economic regulation, "social regulation" is necessary to meet key societal objectives that may not be fully or properly addressed by the market (e.g., 911/e911).

Uncertainty currently exists as to the scope of providers/technologies to which social regulation would apply. In considering the appropriate regulatory regime, Congress has the unique opportunity to articulate a clear *quid pro quo* for the regulation at issue. One technologically agnostic option might be for Congress to provide that any provider seeking to use North American Numbering Plan resources is subject to some universe of generally applicable social regulations as articulated by Congress (or the FCC by delegation). Tying social regulation to the use of a public resource would (a) provide certainty to providers relying on public numbering resources to deliver services, (b) offer a safe harbor to entities that are not relying on such resources, and, perhaps most importantly, (c) provide a clear benchmark for use by state and federal policymakers.

3. Regulatory Parity and Technologically Agnostic Rules

Competition is not sustainable in the long run where substitutable products are subject to asymmetrical regulation. In deciding where to invest, the market will compare the anticipated return on capital invested in a more regulated sector to capital invested in a less regulated sector. A rational investor seeking a maximum return on its investment would, all else equal, choose the less regulated sector.

As such, the ultimate policy regime should not discriminate based on the underlying technology or platform used for the delivery of services: technological parity should result in regulatory parity. From the vantage of the consumer, there is no reason for regulating substitutable products differently. If, for example, Video over IP and Video over FTTH are substitutes from a consumer vantage, a similar regulatory regime should apply. From the vantage of the market, regulatory symmetry works to send accurate price signals, maintain a level playing field, and promote competition based on the merits. The best way to ensure regulatory parity is for Congress to set national policy with respect to competing technologies.

As Congress considers a rewrite of the 1996 Act, two avenues exist for achieving regulatory parity: "regulating up" or "deregulating down." The market for IP-enabled services is competitive, and consumers have more choices than at any point in the past. As such, regulating similarly situated platforms down to the point of regulatory symmetry would likely do more to encourage investment and bring new choices to consumers than would regulating up.

4. Jurisdiction & Process: Cooperative Federalism

In assigning jurisdictional responsibilities, future legislation ought to reflect that states *and* the federal government share certain interests and responsibilities. For example, both levels of government share an interest in ensuring a ubiquitous, reliable and affordable 911/e911 emergency services network. One cannot credibly argue, however, that the 50 states should have independent jurisdiction to set 911/e911 standards. Similarly, the states and the federal government share interests in protecting consumers against unscrupulous practices, in ensuring that networks interconnect, and in curbing abuses of market power.

The issue is not one of states versus federal rights and should not be cast as that. The issue is one of articulating a rational policy framework such that core public policy objectives are met, providers are not deterred from investing in and deploying

new technologies to consumers, and consumers are protected against unscrupulous practices.

Federal statutory reform should focus on the skill sets of state and federal governments before delineating regulatory duties. The nation—its consumers as well as those investing in new technologies—would be best served by a set of national rules that could be aggressively enforced by the states (or federal agencies as the case may be). States have numerous "enforcement" vehicles already established. For example, states have substantial experience enforcing federal rules that provide for interconnection and intercarrier compensation, rules that establish 911 obligations, and rules that prohibit slamming or cramming. Going forward:

- Federal law could establish consistent requirements for platform interoperability and interconnection, with state commissions serving as arbitrators of disputes.
- Federal rules could establish the parameters for the use of North American Numbering Plan resources, while vesting states with enforcement authority (e.g., denial of right to use numbers upon findings of misconduct).
- Comprehensive national truth-in-billing rules could be policed by state commissions (or other bodies deemed appropriate by a state, such as a state Attorney General).

V. KEY POLICY AREAS

A. Consumer Protection

States and the federal government share a common goal of ensuring that consumers are protected against unscrupulous companies and fraudulent practices. That shared goal could best be met by a national consumer protection regime with the following elements: (a) national rules specifically relating to the terms and conditions of communications services; (b) joint state and federal enforcement of such rules; (c) continued application of "generally applicable" state consumer protection, fraud and deceptive business practice laws; and (d) recognition of industry self-policing.

National rules would prevent potentially conflicting (albeit well-meaning) state regulations. For example, California, in a consumer "bill of rights" issued by the state utility commission, dictated the font size to be used in the contracts of national providers. Twenty states requiring twenty different font sizes would be costly for consumers. Requiring that the contracts of national providers comply with a patchwork of state-specific terms and conditions would substantially increase transaction costs (which, in a competitive market, will undoubtedly be paid by consumers). Further, having to comply with potentially 50 sets of state-specific rules may simply deter some providers from even offering service in certain areas. In either case, the consumer loses.

Joint state and federal enforcement of national rules would ensure that the consumers have institutions in their states to which they can turn for assistance. As states have existing enforcement mechanisms (*e.g.*, to address cramming and slamming), the enforcement of consumer rights claims should, to the extent practicable, occur at the state level. Burdening a state consumer with a requirement to enforce his or her claim in a federal forum would be unreasonable in most instances.

Notwithstanding national rules focused on the communications sector, states should continue to have the right to continue to enforce their generally applicable consumer protection, anti-fraud, and deceptive trade practices statutes.

Where possible, public policy should give weight to meaningful self-policing initiatives such as CTIA's Voluntary Consumer Code. Wireless carriers have demonstrated a realization that proper billing practices and consumer satisfaction are important objectives. The Code is designed to encourage greater wireless carrier communication and disclosure to consumers on a voluntary basis.[34] Such initiatives should be encouraged and afforded a reasonable opportunity to address the particular issues at hand. If demonstrated to be effective, such efforts could serve as the basis for national rules or to establish liability of non-conforming providers.

B. Public Safety

Public policy argues for a ubiquitous, reliable and affordable public safety communications network. While market forces will likely encourage competitors to provide functional 911/e911 services over time, the issue should not be left solely to the market.

Congress (directly or via delegation to the FCC) should establish clear 911/e911 mandates for IP-enabled voice technologies. As was the case with the wireless industry, policymakers should afford a reasonable opportunity for providers of IP-enabled voice services to develop compliant systems to meet mandatory standards.[35] Market forces (i.e., consumer demand for 911 service) and a pending government

mandate should motivate effective solutions. As voice traffic migrates from the PSTN to new networks, all segments of the industry have an incentive to provide 911/e911 services sooner rather than later.

In the meantime, VoIP providers using public numbering resources should be required to fully inform consumers regarding the extent to which their service does (or does not) offer 911 service that is functionally equivalent to that provided by traditional telephone providers. To avoid a patchwork of potentially conflicting state regulations, which could chill the rollout of new services to consumers, Congress could provide for uniform, national disclosure guidelines to which VoIP providers using public numbering resources would have to comply in order to provide service.

Finally, all providers utilizing the 911 system (i.e., those routing calls to the 911 system) should bear their "fair share" of the costs of maintaining the system. Regulatory parity argues that those who use the system should, regardless of the platform used, support the system.

C. Taxation

In competitive markets, taxation increase prices, lowers demand, and reduces the amount of funds otherwise available for capital investment. Despite being drivers of the economy, the advanced communications services are generally taxed at rates far above generally applicable business tax rates. As more traffic moves to IP networks, some may argue that existing tax regimes should apply. Where and when possible, the disproportionate tax burden faced by various segments of the advanced communications industry should be addressed.

Taxation of the wireless sector highlights the problem. "States are taxing wireless customers at steep rates of up to 22%-an amount typically reserved for activities such as gambling and alcohol consumption."[36] Estimates are that a typical consumer faces a nearly 17% total tax on wireless service.[37] In contrast, the average tax rate for other goods and services is 6.93%. Between January 2003 and April 2004, the effective rate of taxation on wireless service increased nine times faster than the rate on other taxable goods and services. According to a recent study, each 1% increase in the price of service reduces demand by an estimated 1.12 to 1.29%.[38] In Florida and New York, high taxes arguably reduce customer demand by about 20%.

Reducing an excessive tax burden on the nation's advanced communications platforms is essential if the nation is to maximize its economic development potential. Economist Gregory Sidak estimates that reducing wireless taxes to the prevailing general business tax rates would increase GDP by $53.6 billion to $65.6 billion over ten years and that a one percent decrease in wireless prices would "increase U.S. GDP by between $6.8 billion and $7.8 billion within two years of the tax reduction."[39]

Last year, Congress took the important step of banning Internet access taxes for an additional four years. It is respectfully submitted that this temporary ban should be made permanent.[40] A permanent ban would ensure that Internet access remains affordable for all Americans, regardless of the platform used to access the Internet (dial-up, DSL, cable modem, Wi-Fi, etc.). Since 1998, the moratorium has contributed significantly to the development of the industry (and to economic development generally). Ubiquitous access to the Internet contributes positively to educational achievement, economic development and the delivery of governmental services by Florida and other states. Taxing Internet access would represent a tremendous transfer of wealth from the private sector to government. Such taxation would only make it more difficult for consumers with lower incomes to afford the Internet.

D. Universal Service

Universal service has proved an important tool in helping bring telecommunications services to economically disadvantaged consumers, to consumers with special needs, and to consumers in rural or high cost areas of the country. As consumers increasingly turn to substitutes for a taxed service, not subjecting those substitutes to USF obligations results in regulation picking market winners and losers. Some competitors, but not others, would bear the brunt of funding the program. In reforming the USF program, Congress (or the FCC under the authority delegated to it) should subject some "appropriate" universe of participants to non-discriminatory, technology neutral USF funding obligations.

While reform of USF is a complicated issue involving numerous policy choices and many stakeholders, it is respectfully suggested that any reform of USF recognize certain core principles, including the following:

- USF obligations ought to reflect, to the extent possible, a clear social contract or *quid pro quo* that exists without regard to technology or platform (*e.g.*, any provider that utilizes North American numbering resources shall be responsible for

USF contributions regardless of the technology or platform used to provide service). [41]

- The extension of USF obligations to new providers or platforms ought not constitute simply a new tax. Rather, such extension should reflect a reallocation of planned costs amongst some group of similarly situated competitors.
- Providers that are required to share in the USF burden ought to, at some equitable level, be considered for USF distributions.

Reform of the USF should also strive to tackle distribution issues. For example, wireless providers (serving 182 million) contributed almost 33% of the total universal service fund in 2004 (approximately $2 billion) but received only about 7% (approximately $390 million) in distributions. In comparison, ILECs contributed about 26% of the total USF last year, but received almost 81% of the fund. Long distance providers contributed 37% of the total USF last year, and received about 2% of the fund. While parity in contributions and distributions across platforms may not be attainable, the cost benefit relationship is worthy of consideration.

D. Content

As the use of new technologies and new types of IP-enabled devices increases, so does the risk that that minors may be exposed to inappropriate content. Consider the following:

> *Porn on mobile phones could grow into a $5-billion market by 2010.*[42]
>
> *Playboy Enterprises announced today that the company is set to offer nude and non-nude photo galleries that have been specifically formatted for viewing on Sony's PSP handheld.*[43]

In the home, access to the Internet is under the supervision of the parents or guardian, who can block access to content inappropriate for minors. Wireless technologies and portable devices make parental supervision substantially more difficult. Parents may not realize that inappropriate content might be accessible on the devices or may have no idea how to block access to age inappropriate content on a child's device (even assuming that blocking is possible). Exacerbating the issue is the fact that younger consumers tend to be the early adopters of new technologies. How many members of Congress own Sony's new PSP?

As this Committee is aware, efforts to regulate Internet content face a host of complex technical and constitutional challenges. Protecting the nation's youth from age inappropriate content, however, requires that policymakers and industry work collectively toward solutions notwithstanding those hurdles.

Aggressive industry self-regulation may preempt the need for legislation in certain instances. For example, the Cellular Telecommunications Industry Association ("CTIA") is leading an effort designed to restrict the access of minors to age inappropriate content.[44] The guidelines include the following provisions: (a) development of a voluntary industry-wide consumer content classification system; (b) requirements that users register and provide proof of age for accessing certain content[45] and requirements of subscriber consent to receipt of certain unsolicited commercial content; (c) controls to restrict access to content based on content classifications and a process to update the classification system in consultation with responsible stakeholders as appropriate; and (d) obligations to ensure compliance with applicable laws regarding the protection of minors and cooperation with appropriate law enforcement agencies.

VII. CONCLUSION

The communications world of today is characterized by a host of new technologies and services that are empowering consumers, that are strengthening the nation's education and health care systems, and that are enabling government to be more responsive to the citizenry. The advanced communications sectors are driving, in large part, the country's economic growth.

Advocates for a national policy argue that the full potential for broadband to serve as the engine for the nation's economic and social advancement is not yet being met. My policy views are based on a fundamental belief in markets and a fundamental belief that the beneficiaries of a robust broadband market are the consumers.

Those entrusted with making public policy decisions must aggressively pursue policies to ensure that we—*as a nation*—expeditiously provide consumers with more choices of innovative technologies at the most efficient prices.

Endnotes

[1] "Sending the Right Signals: Promoting Competition Through Commerce. October 6, 2004.

[2] In fact, 29% of jobs lost during this period were in telecommunications. "Sending the Right Signals: Promoting Competition Through Telecommunications Reform." U.S. Chamber of Commerce. October 6, 2004.

[3] http://www.yankeegroup.com/public/products/decision__note.jsp?ID=12911

[4] "CTIA's Semi-Annual Wireless Industry Survey Results." CTIA. 2005. This investment includes a 7.8% increase in cell sites in service from year-end 2003 to year-end 2004.

[5] "CTIA's Semi-Annual Wireless Industry Survey Results." CTIA. 2005. This number does not include related jobs, such as independent third-party retailers, construction, manufacturing, or research and development jobs with other companies. According to the Bureau of Labor Statistics data, the wireless industry (cellular and other wireless carriers) employed more than 13,893 people in the state of Florida during 2003.

[6] "Innovation: The Keystone of the Commercial Mobile Wireless Experience." Cellular Telecommunications & Internet Association (CTIA) Presentation to FCC. April 2004. http://files.ctia.org/pdf/CMRSINNOVATIONmar04.pdf

[7] http://www.internetnews.com/stats/article.php/3495076

[8] Raymond James Equity Research: Wireline: Industry Brief: Cable's Impact Factored Into Estimates, December 14, 2004, Frank G. Louthan IV, Raymond James.

[9] Brown, Ken. "Cablevision to Offer Internet Phone-Call Bundle." The Wall Street Journal. June 21, 2004.

[10] Grant, Peter. "Here Comes Cable...and it Wants A Big Piece Of The Residential Phone Market." The Wall Street Journal. September 13, 2004. p. R6.

[11] FCC Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Radio Services, *Ninth Report.* FCC 04-216. Released September 28, 2004.

[12] FCC Report on Local Telephone Competition: Status as of December 31, 2003. Released June 2004.

[13] Skedd, Kirsten. "Landline Displacement to Increase as More Wireless Subscribers Cut the Cord." InStat/MDR Press Room. February 25, 2004. <http://www.instat.com/press.asp?Sku=IN0401644MCM&ID=895>. Accessed May 3, 2004.

[14] http://www.tr.com/online/tr/2005/tr031505/tr031505-17.htm#TopOfPage

[15] J.D. Power & Associates. "2003 Residential Internet Service Provider Study (August 2003)."

[16] Broadband technologies make distance irrelevant for many rural patients by providing access to out-of-area physicians and health care resources. High-speed networks allow health care professionals to deliver medical care more efficiently.

[17] R.W. Crandall and C. L. Jackson, et al, *The Effect of Ubiquitous Broadband Absorption on Investment, Jobs, and the U.S. Economy,* Criterion Economics New Millennium Research Council (2003). Based on $0.97B per year on residential DSL and $2.38B per year on residential cable broadband for a total of some $3.35B per year.

[18] http://www.ncta.com/Docs/PageContent.cfm?pageID=37

[19] http://www22.verizon.com/about/community/fl/news/alan__opinion.html

[20] http://www.sbc.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=21427

[21] http://www.instat.com/press.asp?ID=1221&sku=IN0401183WN

[22] Section 364.01(1), Florida Statutes, grants the Florida Public Service Commission jurisdiction over "telecommunications companies," and Section 364.02(13)(c), F.S., excludes CMRS providers from the definition of a "telecommunications company."

[23] Florida law provides that VoIP is "free of unnecessary regulation, regardless of the provider" and exempt from the definition of "service" for purposes of state commission regulation Sections 364.01(3) and 364.02(12), Florida Statutes. In filings with the FCC, the Florida Public Service Commission distinguished between traditional economic regulation and social policy regulation is discussing necessary versus unnecessary regulation.

[24] Section 364.0361, Florida Statutes.

[25] Florida Legislature, 2005 Session, SB 2068 and HB 1649, as of April 25, 2005.

[26] FCC Report on Local Competition:— Status as of December 31, 2003. Released June 2004.

[27] FCC report on "High-Speed Services for Internet Access: Status as of December 31, 2003." Table 7.

[28] Verizon corporate news releases, July 19, 2004 and April 20, 2005. http://newscenter.verizon.com/

[29] The reasoning Justice Scalia, a states rights advocate, on the local competition issue supports having a national policy to govern IP-enabled services and broadband generally. As Justice Scalia has stated, "[T]he question . . . is not whether the Federal Government has taken the regulation of local competition away from the states. With regard to the matters addressed by the 1996 Act, it unquestionably has. The question is whether the state commissions' participation in the administration of the new federal regime is to be guided by federal agency regulations. If there is any presumption applicable to this question, it should arise from the fact that a federal program administered by 50 independent state agencies is surpassing strange."

[30] The U.S. Chamber of Commerce estimates that reforming telecom laws would add 212,000 jobs over a five-year period and lead to $58 billion in new investment.

[31] *See* H.R. Conf. Rep. No. 104-458, at 1, reprinted in 1996 U.S.C.C.A.N. 10 (emphasis added).

[32] An IP voice "call" between individuals in the same might carom between servers or gateways in different states. Determining the topography of such traffic—ahead of time—is often not possible.

[33] States can and should work to remove unnecessary barriers to broadband deployment. In particular, states can work with local governments on rights-of-way access and permitting issues. To address the supply side, states can also create financial and non-financial incentives for build-out of the broadband network. To address the demand side, states can offer e-learning applications and other e-government initiatives to promote the value of using broadband technology to carry out day-to-day functions.

[34] According to the CTIA website, 33 carriers, including all of the national carriers, have adopted the Code For the complete list of the 33 wireless carriers that have adopted the CTIA Consumer Code, please see: http://www.ctia.org/wireless—consumers/consumer__code/index.cfm.

[35] A similar approach was adopted for wireless 911 services. Initially, the ability to pinpoint the location of a caller was not imposed. The industry was given a reasonable opportunity to develop a solution.

[36] http://www.yankeegroup.com/custom/research/decision __ note.jsp?ID=12704&PID=6DD2924 EE68446BB

[37] This total represents a 6.05% federal tax and a 10.74% state/local tax.

[38] http://www.pacificresearch.org/events/2003/wireless/SidakFactsheet.pdf

[39] http://www.pacificresearch.org/events/2003/wireless/SidakFactsheet.pdf

[40] A permanent ban Internet access taxes does not have to preempt state and local taxation of online commerce; impact state and local taxation of traditional telecommunications services or long-distance service that are not solely used to provide Internet access; impact state sovereignty over taxation, except to the extent that taxing interstate service of Internet access is prohibited; affect the State Streamlined Sales Tax Project; impact a state or local government's ability to collect any corporate, property, or income taxes; or prevent taxation of products or services that are otherwise taxable just because they are bundled together with Internet access services.

[41] Defining the "proper pool" might consider factors such as: the share of the voice market held by the provider (so as to exclude providers with but a negligible share of the market); whether the VoIP is a computer-to-computer application (such as Skype); or whether the VoIP does not "touch" the PSTN at either end

[42] http://www.redherring.com/Article.aspx?a=11541&hed=Mobile+porn%3A+Moving+fast

[43] http://news.gaminghorizon.com/media2/1114012080.741.html

[44] http://www.wirelessweek.com/article/CA506391?spacedesc=Departments&stt=001

[45] Compare http://www.theregister.co.uk/2005/02/14/orange__adult__filter/ (Wireless company Orange UK has started blocking the delivery of adult content to users not registered as over 18).

Mr. UPTON. Mr. Perkins.

STATEMENT OF JOHN R. PERKINS

Mr. PERKINS. Thank you, Chairman Upton, Ranking Member Markey. My name is John Perkins. I am the consumer advocate from the State of Iowa. I am also currently the President of the National Association of State Utility Consumer Advocates.

The NASUCA is an organization comprised of 42 States whose consumer advocates are generally—and the District of Columbia—whose consumer advocates are generally charged with representing their individual residents in their States before their public utilities commissions. As such, we also usually have the authority to appear in State and Federal courts, to appear before Federal agencies, such as the FCC and FERC, and also to appear before legislative bodies, such as Congress and our State legislatures.

As you look at this new legislation involving new technologies, I think there are a couple of issues—a couple of points I would like to make for you to keep in mind. And maybe they don't need to be said, but as a consumer advocate, I guess we feel we need to keep making those points as often as possible. The first is that the overarching—the overriding principle behind all telecom legislation historically and into the future is that the public interest has to be the overarching principle that we reach for. We have to make sure that telecommunications are made as widely as accessible, as accessible as possible at the most reasonable cost that we can. That should govern any legislation, whether it is Federal legislation or State legislation, and it is as applicable to the old POTS network as it is to our new Internet telecommunications that we are looking at.

I think the other issue that I would like the subcommittees—and this is not just this subcommittee, but the subcommittees that are also looking at the competition issues, the merger issues, universal service funding, those issues, should keep in mind that IP doesn't necessarily mean it is on the Internet. Just because it is called Internet Protocol doesn't mean that it is—somehow should become

an information service, and deregulated or unregulated. A lot of the new switching that the LECs are using, so-called IP switching, the so-called soft switching, those are Internet protocols, but they still use the public switch telephone network. My telephone call using my wire line Quest telephone may go through an IP-enabled switch, but it doesn't make it an Internet-based telephone. So as this committee looks at definitions of IP, I hope it keeps in mind that just because IP is attached to a phrase, that it is not defined so broadly that the LECs are going to be able to come in later and say "We have IP switching. We are an information service. You can't regulate us." I think that is an important issue.

I think another point that should be made is if we follow the media and advertisements, it would appear that every American has a computer, and probably most of us have a broadband connection to that computer, and that is just not true. The latest figures that I have seen show that 30 million Americans have a broadband connection, but 170 million Americans have wire line access. That is not a very big percentage of people that have a broadband connection. And when the LECs start saying well, broadband bypasses 70 to 80 percent of the American homes. That is a fine statistic, but it is really meaningless, because the simple fact of the matter is, broadband connections are still expensive, and many Americans can not afford a broadband connection. So to say that a cable runs right outside their home doesn't mean a thing. They are still not going to buy a computer. They are still not going to get a broadband access because it is too expensive.

I think that the last thing was one that was touched on by Chairman Munns, and that is the issue of preempting States' rights. I think the States have a very legitimate interest in consumer protection issues and safety issues, and the Internet is really no different than an interstate highway. We have—States have the ability to regulate the speed and size of traffic on its interstate highways. They need that same ability. These new technologies are going to be a trap for the unwary by the unscrupulous, and State consumer protection statutes are uniquely designed to protect their citizens from any type of action in that regard.

We have attached a VoIP resolution that our association did a year and a half ago, and I think that the points in that resolution are still applicable today.

Thank you, Chairman.

[The prepared statement of John R. Perkins follows:]

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

Chairman Upton and members of the House Subcommittee on Telecommunications and the Internet: Thank you for the opportunity to speak to you today on the important issues surrounding how IP-enabled services are changing how we communicate.

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 who are 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 42 states and the District of Columbia.

The rapidly changing face of telecommunications has made it necessary to reexamine some of the precepts behind the Telecommunications Act of 1996, passed less than a decade ago by Congress. Wireless and the Internet have provided diverse new ways to communicate with one another, making instantaneous contact over great distances no longer the exclusive province of the public switched telephone network it was just several decades ago. The technology is mind-boggling to the average consumer over the age of eighteen. While pre-teens to college students want the most advanced abilities to communicate with each other from their telephones, including sending pictures and text messages, many of the rest of us just want to be able to pick up a telephone, hear a dial tone, have a call completed to the number we dial and be able to hear the voice on the other end—all at a reasonable price. We don't care through what magic that is accomplished. The challenge for Congress is to devise legislation that balances that need, with the need to make sure those magicians who continue to dazzle us with their seemingly daily new methods of communications, have the proper incentives to continue that progress. As always, there is a natural tension between the two—and some of that can and should be handled by the market place between competitors.

However, there are some issues that are too important to be left to the competitors and entrepreneurs to work out and should continue to be regulated by government, both state and federal.

For example, while most people now agree the Internet is truly an interstate phenomenon and individual states should not be in the business of regulating the rates charged for Internet service, there are important consumer protection and safety issues in which states have a legitimate interest. States should be allowed to apply their individual state consumer protection laws to insure their residents are not the victims of those providers who, in their competitive zeal, may take unfair advantage of those consumers who are unfamiliar with this new technology.

Another broad consideration we feel Congress should keep in mind is that many local exchange carriers, such as the four regional Bell operating companies, will soon be using IP to carry calls by replacing their state of the art circuit switches from 10 years ago with new IP soft switches. The reason is simple: the new IP soft switches are more efficient. But the customers may never realize as they use their old telephones and old services that the digital magicians have a more efficient way to provide the same old POTS. These customers should also not be subjected to lesser consumer protections just because their local exchange carrier—who they have dealt with for years "is changing its technologies in ways the customer will likely never notice.

When defining what is an IP for telephony, Congress should take care not to define it in such a way that ILECs can claim their use of IP on their old networks now would avoid all state regulation. If it walks like a duck . . .

Another consideration we feel it would be appropriate for this subcommittee to examine overlaps with those Congressional subcommittees reviewing competition in the telecommunications industry as well as those examining the recently announced mergers between SBC and AT&T and between Verizon or Qwest and MCI. Fully one-third of the broadband connections (in the form of DSL) are supplied by incumbent local exchange providers, such as the four RBOCs. Of the four, only Qwest has announced it will voluntarily allow its subscribers to purchase its broadband without the necessity of also purchasing its local exchange service. The other three RBOCs require their customers to purchase their local exchange service in order to obtain their broadband connection.[1] Such a tying arrangement stifles competition for Internet telephony. Customers should be free to use their own equipment, and access software and services freely on their broadband, the so called "net freedoms" concept espoused by former FCC Chairman Michael Powell.

E911 capability is essential for Internet telephone providers. As vividly brought home by the recent tragic event in Houston, Texas, many people who purchase an Internet telephone product don't realize their local law enforcement agencies no longer have the ability to determine their address when they call 911 on an Internet based telephone, such as voice over IP (VoIP). The providers must be forced to rapidly develop the capability for VoIP to allow E911 service. The technology is available, but not all companies are using it.[2] In fact, earlier this month Canada required Internet telephone carriers to immediately provide basic E911 service. Two large

[1] Verizon's recent announcement it will provide stand-alone DSL in some limited circumstances is so constricted as to be an essentially worthless concession.

[2] Another problem is that VoIP providers are having problems gaining access to incumbent carriers' E911 trunk lines. Vonage recently struck a deal with Qwest for access, but has complained that BellSouth, Verizon and SBC—who allow their own VoIP service to access their E911 trunks—are balking at providing access.

providers—Primus Telecommunications Canada, Inc. and Vonage Canada— said they supported the government's position. CALEA and TTY face the same access issues as E911.

Finally, despite news articles that would lead one to believe everyone in the United States has a computer with a broadband connection, the simple fact is only 30 million Americans have broadband. Compared to the 170 million access lines of the traditional telephone companies, the number of people who have the ability to use Internet telephony is still quite small. As you and other Congressional committees examine the entire gamut of issues related to telecommunications, it is essential not to forget the vast of majority of Americans, especially those in rural areas, who still rely on POTS to communicate. In our rush to embrace these new technologies, we should keep them in mind.

Companion issues relate to the Universal Service Fund and access charge payments. Currently, Congress is studying the USF funding base and how to best handle the continued availability of telephone access in high-cost areas. As calls are routed over the Internet to one degree or another, providers are refusing to pay into the fund, even though their customer may use part of the PSTN to complete a call. The same issues arise with access charges. Congress should look carefully at these issues when considering any legislation on Internet telephony.

NASUCA passed a resolution on November 16, 2003 at its Annual Meeting dealing with VoIP service, a copy of which is attached to my testimony.

Again, thank you for the opportunity to appear before you to give our perspective on this sea-change in telecommunications. I would be happy to address any questions of the committee members.

RESOLUTION ON VOICE OVER INTERNET PROTOCOL SERVICE

WHEREAS, the widespread availability of affordable, reliable, high quality voice telecommunications service is essential to the public health, safety and welfare and is required by federal law;

WHEREAS, 47 U.S.C. 153 (48) defines telecommunications as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received";

WHEREAS, 47 U.S.C. 153 (51) defines a telecommunications service as "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used";

WHEREAS, incumbent local exchange companies, competitive local exchange carriers and interexchange carriers are modifying their networks so that they may provision telecommunications services utilizing voice over Internet protocol (VoIP) technology;

WHEREAS, VoIP services may be offered to the public as either a voice telecommunications service or a substitute for voice telecommunications service;

WHEREAS, VoIP providers have argued that they provide only information services and do not provide telecommunications services;

WHEREAS, carriers are increasingly migrating their traffic to a packet-switched basis like that used for VoIP;

WHEREAS, the migration of service to VoIP and VoIP-like services raises concerns about universal service and universal service support;

WHEREAS, VoIP and VoIP-like services raise concerns about access to E9-1-1 emergency services and financial support for E9-1-1 emergency services;

WHEREAS, regulation of VoIP and VoIP-like services may be better accomplished under Title II of the Communications Act;

WHEREAS, both state and federal regulators are responsible for ensuring the continued widespread availability of reliable, affordable and high quality telecommunications services, and for ensuring continued access to E9-1-1 emergency services for customers of such telecommunications services;

THEREFORE BE IT RESOLVED, that the Federal Communications Commission (FCC) should not define VoIP services to be exempt from regulation, universal service support obligations or E9-1-1 access so that states are preempted from properly exercising their authority to ensure the continued provision of reliable, affordable, high quality voice telecommunications services, including access to E9-1-1 emergency services;

BE IT FURTHER RESOLVED, that the Telecommunications Committee of NASUCA, with the approval of the Executive Committee of NASUCA, is authorized to take all steps consistent with this Resolution in order to secure its implementation.

Approved by NASUCA:
Place: Atlanta, Georgia

Date: November 16, 2003

Mr. UPTON. For not looking at the clock, you did exactly perfect, so——

Mr. PERKINS. I have got my watch right here.

Mr. UPTON. Oh, is it? All right. Mr. Quam.

STATEMENT OF DAVID C. QUAM

Mr. QUAM. Mr. Chairman, members of the committee, thank you very much for the opportunity to testify.

This is a topic of great interest to Governors, both IP-enabled services and really the future of communications. But as we look at it, sometimes it helps to step back. And one way I can view communications and where we stand is to actually look at what has happened to coffee. Back in 1984, coffee was just that. It was coffee. Today's consumers must pick size, tall, grande, bente, roast, light or dark, caffeine or no caffeine, drip, latte, espresso, Americano, frappachino, milk or soy, fat or no fat, foam or no foam.

Communications service today is much the same. Before 1984, a phone was a phone. Today, it is analog or digital, landline, wireless, or VoIP, text messaging, paging, e-mail, worldwide web, call waiting, caller ID, dial-up or broadband, cable, DSL, or Y-fi, IP video, satellite, cable, or broadcast. And who knows what is to come. That is the challenge that is before Governors. It is before Congress. It is before local elected officials. How are we going to set up a regulatory scheme that fits that world of consumer choice?

The bottom line for NGA: full and robust competition requires a light touch approach that ensures nondiscriminatory access to essential facilities, to acknowledging neutral policies, and consumer protection safeguards to serve the public interest. This can only be effectively accomplished by having the Federal Government partner with and grant State and local governments the authority to promote competition and innovation, encourage economic development, protect the public safety, and ensure consumer protections.

As Congress works to reform the Nation's communications laws, Governors encourage this committee to work with State and local governments to create a regulatory framework that does several things.

First, one that would employ a balanced federalism approach that grants States, territories, and localities the authority to protect the interest of their constituencies.

Second, would create a level playing field for all industry participants in any given service area, regardless of the nature of the technology used to provide that service.

Third, it would be sufficiently flexible and technology neutral to respond to any new developments in the industry. It would also continue to emphasize reliability standards on all communications systems, ensure that States, territories, and localities retain the authority to manage public rights of way consistent with State laws and policies, support States' abilities to provide for all their citizens with access to communications services, and it would not preempt the sovereignty to determine their own tax policies.

As I have stated before and it has been stated repeatedly by this distinguished panel, any rewrite of the communications laws should recognize and retain an active role for State and local gov-

ernments in communications policy. In particular, Congress should preserve State and local authority in the following key areas: public safety would be the first. State and local law enforcement and public safety agencies rely heavily on communications services and operators to protect the public interest. States must continue to have the authority to collect these, and run a ubiquitous e911 system within their borders. In addition, national communications policies should not hinder law enforcement efforts by creating technological safe havens to communicate or plot criminal activity. Consequently, Governors support Congressional efforts to extend necessary components of COLEA to all advanced communications.

Second, consumer protection. Consumers require a practical way to resolve common complaints, service outages, and deceptive behavior. States have a long track record of serving that role. States should retain the regulatory flexibility in enforcement authority to effectively and creatively respond to consumer concerns.

With regard to access, the value of the network—and that is what we are talking about, a communications network—is directly related to the number of people who use it. Twenty-four States have instituted their own State universal service funds to help ensure that all their citizens can access communications services. Governors feel that any changes to Nation's communications laws should not hamper a State's ability to continue its state universal service fund or prevent States from developing new programs to supplement any corresponding Federal plan.

And finally, with regards to competition. Governors welcome and support competition. Communications networks are the next great economic driver for States and for the Nation, but when a competitive market does not exist, States should still retain the authority to manage communications infrastructure and competition in local markets.

The 1996 Act ushered in a new era of cooperative federalism in communications. This framework took into account the responsibilities of each level, based on their core competencies. Federal Government used its authority to develop national communications goals. States were given regulatory flexibility and enforcement powers to promote competition, manage public safety networks, protect consumers, and help ensure access to communications services. Governors look forward to working with the Congress to buildupon our Federal/State partnership and use our collective strengths as a basis for any new regulatory structure.

Thank you, Mr. Chairman.

[The prepared statement of David C. Quam follows:]

PREPARED STATEMENT OF DAVID QUAM, DIRECTOR, FEDERAL RELATIONS, NATIONAL GOVERNORS ASSOCIATION

Mr. Chairman and members of the committee, my name is David Quam, and I am the Director of Federal Relations for the National Governors Association (NGA). I appreciate the opportunity to appear before you today on behalf of NGA to discuss the role of states in the future of communications policy.

OVERVIEW

The Internet has changed everything. While only a generation ago most people had not even heard of the Internet, today they go online to conduct business transactions, purchase goods and services, trade stocks and bonds, and make phone calls. The Internet has also spurred competition. Every week another company seems to

announce a new service for consumers that breaks with the existing regulatory framework of one delivery platform-one service. Telephone companies are rolling out IP video services; cable companies are offering Voice-over-Internet-Protocol phone services; and wireless providers allow a person to surf the World-Wide-Web while picnicking on the National Mall. The beneficiaries of this revolution are consumers, individuals, and businesses that rely on communications services to conduct business, purchase goods and services, send and receive information, and reach emergency services. The innovators are the companies and entrepreneurs who are constantly pushing to find new ways to communicate and to improve existing systems. The regulators are the federal, state, and local government officials who must now decide how to best work together to maximize the benefits for consumers, foster innovation and investment, promote competition, protect the public safety, and ensure consumer protection in an IP-enabled world.

THE PUBLIC POLICY CHALLENGE

The remarkable revolution in communications technology since the 1996 Act could have not been anticipated by lawmakers. Current federal and state communications policies call for a distinct regulatory treatment for telephone, cable, satellite, wireless, and Internet services industries. Under this "vertical silo" approach, each segment is treated differently based on its core service. The 1996 Act, which focused on promoting competition within these silos, did little to prepare for the development and maturation of new platforms and services that are not bounded by technology. It is these new innovations, including IP-enabled services, that are creating advantages and disadvantages for both incumbents and new entrants, and challenging state and federal policymakers to rethink communications laws to better reflect the way services are delivered in a digital age.

Governors welcome this challenge and are committed to working with Congress, industry and local governments to modernize the nation's communications laws in a way that supports continued growth of a competitive industry for the benefit of consumers and the national economy. NGA has been working with other state and local organizations to find common ground and align our interests and policies. Governors encourage Congress to work with state and local governments to create a regulatory framework that:

- employs a balanced federalism approach that grants states, territories, and localities the authority to protect the interests of their constituencies, particularly as it relates to promoting local competition, encouraging economic development, protecting public safety, and ensuring consumer protection;
- creates a level playing field for all industry participants in any given service area, regardless of the nature of the technology used to provide that service;
- is sufficiently flexible and technology-neutral to respond to new developments in the industry;
- continues to emphasize service reliability standards on all communications systems;
- ensures states, territories, and localities retain the authority to manage public rights-of-way consistent with state laws and policies; and
- does not preempt the states' sovereignty to determine their own tax policies.

While Governors look forward to modernizing our nation's communications laws in a way that promotes further economic development and innovation, any new regulatory structure must also give states, territories, and localities the ability to maintain state services and roles consumers have come to expect.

STATE ROLES IN COMMUNICATIONS POLICY MUST BE MAINTAINED

States play a major role in the nation's communications system as regulators, service providers, and consumers of communications services. State governments have the responsibility to ensure the public interest is being served by all businesses in our states, including communications providers. Consumers expect states to ensure certain public goods and social goals. These include maintaining the public safety, consumer protection, universal service, and consumer choice. While Governors understand that these state roles may change as technology develops and communication services converge, they still believe the states are best suited to perform these essential roles consumers have come to expect. States have more resources, as well as a better understanding of local markets and day to day issues related to communications services, than the federal government, thereby making them better suited to carry out and enforce these important public services. At the same time, Governors recognize the benefits working together within a national communications framework to accomplish common goals in protecting the public in-

terest. Specifically, Governors feel states must maintain their roles in the following key areas.

Public Safety

State and local law enforcement and public safety agencies rely heavily on communications services and operators to protect the public interest. In particular, the ability to receive E911 calls and direct emergency services to a caller's location is vital for first responders. States must continue to have the authority to collect fees and run a ubiquitous E911 system within their borders.

Currently, states and localities have the sole responsibility for funding, managing, and upgrading state wireline and wireless 911 services. States and localities collect E911 fees on wireline and wireless phone services, which is the only source of funding for state E911 systems. Without the authority to collect E911 fees on new services, funding for E911 systems may be jeopardized as consumers shift to new technologies. This potential decrease in funds will place a strain on legacy E911 systems and increase the cost burden on citizens who use wireline and wireless services.

Moreover, it is states that ensure all wireline and wireless phone companies have access to phone trunks and customer databases, which is a critical part of maintaining a ubiquitous and functional E911 system. Even though some VoIP services are working to voluntarily implement E911 services, they are finding it increasingly difficult to interconnect with incumbent phone companies' trunks, making it virtually impossible to implement a workable E911 service. The Telecommunications Act of 1996 gave states the regulatory authority to make certain that wireline and wireless carriers have access to the necessary information and infrastructure to provide E911 service. States must continue to have this authority over VoIP providers, in order to ensure Internet phone services can provide E911 services. Moreover, if VoIP providers develop their own E911 systems that do not properly connect with each state E911 system, the nation could end up with a patchwork of E911 systems that do not interconnect. To maintain a seamless and ubiquitous national E911 system, states must have regulatory authority to collect E911 fees on Internet phone services and make certain all voice services can interconnect with the state's E911 system.

In addition, state and local law enforcement agencies rely heavily on electronic surveillance to investigate and prosecute criminals. National communications policy should not unwittingly hinder law enforcement efforts by creating technological safe havens to communicate and plot criminal activity. Consequently, Governors support congressional efforts to extend necessary components of the Communications Assistance for Law Enforcement Act of 1994 (CALEA) to all advanced communications.

Consumer Protection

Before consumers fully accept, adopt, and substitute Internet-enabled services for traditional phone and video services, they must feel confident and trust these new services. This confidence and trust can only grow if consumers have a practical way to resolve common complaints, service outages, and deceptive behavior. States have a long track record for ensuring consumer protection and are more accessible to businesses, consumers, and communications companies than are federal officials. States have quickly responded to consumer complaints on traditional phone services by developing innovative programs, like the "do not call list," which became widely popular and was eventually implemented on the federal level. States should retain the regulatory flexibility and enforcement authority to effectively and creatively respond to consumer concerns.

Universal Service

In order for states and the nation to take full advantage of new Internet-enabled services, affordable broadband access must be available in all "corners of a state." Twenty-four states have instituted their own state universal service funds that now total $1.9 billion. States collect state universal service funds fees on intrastate phone services to help keep phone costs down in rural and urban areas, and make broadband connections more affordable where competition does not exist. Governors feel that any changes to the communications law should not hamper a state's ability to continue its state universal service fund or prevent states from developing new state universal service programs to supplement the federal plan.

Competition

Governors welcome and support competition in local communications markets. When a competitive market does not exist, states should retain the authority to ensure nondiscriminatory access to essential facilities, prevent incumbents from using market power to stifle competition and innovation, and maintain safeguards when market forces fail. Recently, the Federal Communications Commission overturned

four states' actions aimed at allowing consumers to purchase broadband Digital Subscriber Line (DSL) service from a telecommunications company without also requiring the consumer to purchase traditional voice service from the same provider. Known as "naked DSL," these state actions would have added to consumer choice. After all, why would consumers who are required to buy traditional phone service with their broadband access then purchase Internet phone service?

States have the resources and expertise to quickly respond to situations where access to local networks is used to stifle new technologies from taking root. Over the past eight years, states have used their resources and expertise to monitor and ensure fair competitive behavior in local markets. Governors feel states should continue to have flexible regulatory authority to promote competition within local markets and protect nascent technologies form anti-competitive behavior.

CONCLUSION

The 1996 Act ushered in a new era of cooperative federalism in communications. This framework took into account responsibilities based on competencies. The federal government was given the authority to develop national communications goals, while states were given regulatory flexibility and enforcement powers to quickly respond to consumer complaints, manage public safety networks, protect consumers when market forces fail, and help ensure universal and affordable access to communications. Governors look forward to working with Congress to build upon our federal-state partnership and use our collective strengths as a basis for a new regulatory structure.

Thank you for the opportunity to share NGA's position on the state role in the future of communications policy. I would be happy to respond to any questions you may have.

Mr. UPTON. Thank you. Ms. Strauss.

STATEMENT OF KAREN PELTZ STRAUSS

Ms. PELTZ STRAUSS. Thank you. Good afternoon, Mr. Chairman, Ranking Member Markey, and members of the subcommittee. My name is Karen Peltz Strauss, and I am pleased to appear today before you to talk about disability issues on behalf of Communication Services for the Deaf and the Alliance for Public Technology, on whose board I serve. In addition, I am privileged to have this testimony endorsed by a number of disability organizations that represent millions of Americans of a vital interest in making sure that the new regulatory structure adopted for Internet-enabled technologies will meet their communication needs. We thank you for this opportunity to present our views.

The last time that this disability community came before your committee was when you were considering the Telecommunications Act of 1996. That Act put into place various requirements for access to telecommunications and television, culminating nearly 30 years worth of efforts to secure equal access. Through this and other laws that your committee was instrumental in passing over the past few decades, people with disabilities now have greater access than ever before to communication. These laws and new mainstream technology, such as paging and text messaging, have made a dramatic difference in the lives of people with disabilities by opening up new opportunities to employment, education, and commerce, and making it easier for these individuals to become productive members of our society.

As IP technology has changed the way our Nation communicates, people with disabilities are again presented with remarkable opportunities to enhance their independence and productivity, but consumers will only be able to reap these benefits if these technologies are made accessible through universal design. People with disabilities don't want to be relegated to obsolete technologies or depend

on specialized devices that are hard to find. They want an equal opportunity to benefit from the full range of functions and features of mainstream products that the rest of our community enjoy.

I just refer to people with disabilities as "they", but really, I should be saying "we". We, as a Nation, are living longer, and as we do, building products and services to be accessible are taking on an even greater significance. According to the U.S. census, 42 percent of people aged 65 to 74 report having some type of disability. This number jumps to 64 percent for people over 75. Many of us are already finding out that advanced years brings reduced vision and hearing. Unfortunately, history tells us that without clear directives from Congress to provide access, the companies developing IP services are unlikely to make their products accessible. This is because competitive market forces have not been responsive to the needs of people with disabilities. Your response to these market failures has been a string of legislative acts, the Telecommunications for the Disabled Act, the Hearing and Compatibility Act, the ADA, the Decoder Circuitry Act. You have seen the need to impose these disability safeguards, even where you have otherwise sought to apply a light regulatory touch in order to foster competition and innovation.

Now, to highlight a few areas where specific legislative action is needed. First, we ask that you extend the access provisions of the 1996 Act to IP technologies now, when it easy to do so, rather than later, when retrofitting is expensive and burdensome. An accessibility mandate is needed to ensure that IP communications services are inter-offerable, so that people using text and video have the same ability to talk to each other as voice telephone users do. The deaf community has already faced problems with instant messaging and video relay services not being inter-offerable. Video relay allows people who are deaf to talk directly to hearing people with interpreters over the Internet. In addition, companies that are making IP technologies need to ensure that the interfaces used with these products are accessible. Last week, this committee watched demonstrations of innovative IP TV systems that would allow viewers to scroll through various channels, use Internet services, and make the TV experience truly interactive. But think for a minute how a blind person can know which channel is on, or how to choose among menu options if onscreen menus are used. I will tell you, they can't, at least not now. But if a speech-enabled chip and an output device are used to connect the TV to a PC, the blind person could use a handheld device to control the menus with the assistance of a screen reader. If a device requires one sense, such as hearing, sight, or voice to control its operation, it should offer the option of using other senses.

Second, universal service programs need to be reformed to address the needs of people with disabilities in the IP-enabled environment. Right now, only common carriers are required to fund relay services. Contributions from IP service providers are also needed to sustain the viability of these services. Conversely, as people with disabilities migrate from using the public switch network to IP telecommunications, they should be able to use USF subsidies that go directly to end users, for example through Lifeline and

Link-up programs, to help defray the costs of broadband or high priced specialized devices.

Third, Congress needs to take measures to expand access to television programming, first by extending closed captioning obligations to IP TV providers, and second, by restoring the FCC's rules on video description. And we wish to thank Congressman Markey for introducing a bill to achieve just this.

Finally, we urge that State governments be permitted to retain some authority over telecommunications relay programs, even where these programs use IP services. Several local programs have been directly responsive to the needs of their communities in ways that can't be matched by a Federal agency located across the country.

In conclusion, mandates are critically needed to preserve the extraordinary gains achieved by more than two decades of Congressional efforts to promote full telecom access as our Nation now migrates from legacy technologies to more versatile and innovative IP technologies. All of the prior mandates were created with the understanding that the costs to society of not providing access in terms of unemployment, dependence, and isolation would far exceed the cost of providing such access.

We look forward to working with your committee to carry the legislative progress made in the past into the IP-enabled world of the future.

Thank you.

[The prepared statement of Karen Peltz Strauss follows:]

PREPARED STATEMENT OF KAREN PELTZ STRAUSS, LEGAL ADVISOR, COMMUNICATION SERVICE FOR THE DEAF, MEMBER, BOARD OF DIRECTORS, ALLIANCE FOR PUBLIC TECHNOLOGY

Good afternoon, Mr. Chairman, Congressman Markey and members of the Subcommittee. My name is Karen Peltz Strauss, and I am pleased to appear today on behalf of Communication Service for the Deaf, for whom I serve as legal advisor, and the Alliance for Public Technology, for whom I serve on the Board of Directors. In addition, I am privileged to have this testimony endorsed by a number of national organizations that advocate on behalf of people with disabilities, including the American Association of People with Disabilities, the American Foundation for the Blind, Association of Late-Deafened Adults, the Deaf and Hard of Hearing Consumer Action Network, the National Association of the Deaf, Self Help for Hard of Hearing People, and Telecommunications for the Deaf, Inc.[1] These organizations represent millions of Americans with disabilities who have a vital interest in making sure that the new regulatory structure adopted for Internet-enabled services will meet their communication needs. We thank you for this opportunity to present our views.

Members of the Committee, the last time that the disability community came before you was during consideration of legislation that became the Telecommunications Act of 1996. Sections 251, 255, and 305 of that Act, requiring telecommunications products and services to be accessible by people with disabilities and creating mandates for television captioning, were the culmination of a nearly thirty-year effort to secure equal access by people with disabilities to the telephone network and television programming. We call upon Congress now to carry these mandates forward with respect to IP-enabled services and the equipment used to access those services.

As new Internet technologies change the way our nation communicates and receives information, people with disabilities may be presented with remarkable opportunities to enhance their independence and productivity . . . but only if legislative safeguards are put into place to ensure that accessibility features are built into IP services and products at the time that they are designed, and only if these mandates

[1] A brief description of each of these organizations is attached.

follow the principles of universal design to which the 1996 Amendments adhered. People with disabilities wish not to be relegated to obsolete technologies, nor become dependent on adaptive or difficult-to-find "specialized" equipment not needed by the general public. They want an equal opportunity to benefit from the full range of features and functions of mainstream IP products, as these new innovations rapidly become deployed throughout their communities.

Improvements in our nation's communications technologies over the past ten years already have made a dramatic difference in the lives of people with disabilities. New forms of telecommunications relay services, enhanced mandates for television captioning, and enhanced mainstream technologies, including paging, text messaging and Internet services, have had a liberating effect on the lives of people with disabilities and have opened up new opportunities in and access to employment, education, commerce, entertainment, and government. This Committee is to be thanked for many of these opportunities. Through the various laws that you have passed—legislation mandating hearing aid compatibility, nationwide relay services, and as mentioned earlier, mandates for captioning and general telecommunications access—individuals with disabilities now have greater access than ever to communication and video programming services.

But many of the gains already made will be lost if the needs of these individuals are not again considered as our nation migrates to Internet-enabled technologies. The disability community is excited about the marvelous and diverse innovations now being developed. The ability to select from among many communication modes—voice, text, or video—can enable users with disabilities who are able to perform some functions but not others, to choose the telecommunication mode best suited to their needs and circumstances. IP-enabled services also have the capacity to enable individuals to use multiple conversational modes during a single conversation, and to even change modes mid-transmission, if the need arises. But just as easily as new IP innovations can offer significant promise, so, too, can they result in isolation and disenfranchisement if they are not designed to be accessible.

History tells us that without clear directives from Congress to provide accessibility, the companies developing these services are unlikely to meet the challenge of doing so. Traditionally, competitive market forces alone have proven insufficient to ensure the accessible design and manufacture of products and services. There are a number of reasons for this. Although it is estimated that nearly 54 million Americans have one or more disabilities—collectively comprising a significant portion of the American marketplace—when divided by disability, it is difficult for any one disability group to create enough pressure to influence market trends. In addition, people with disabilities on average earn lower incomes than the general public, translating to fewer spending dollars capable of impacting competition. Finally, people with disabilities are often deterred from purchasing mainstream communications products and services because they need, but cannot afford, expensive adaptive equipment to make these work for them.

Pressures on company executives to bring profits to their businesses in the highly competitive communications industry can be overwhelming. Diverting resources to incorporate accessible design is risky for one company when access is not required of that company's competitors. As a consequence, even an internal advocate for disability access within a company may have a tough time selling access initiatives to that company's executives, in the absence of laws requiring accessibility.

The unfortunate truth is that without market pressures, the telecommunications industry has typically failed to address the needs of people with disabilities, except when specifically ordered to do so by Congress or the FCC. For example, in the 1970s and 1980s, when telephone manufacturers began introducing new phones that were no longer accessible to people who used certain hearing aids, consumers needed legislative assistance to restore their lost access. Both the Telecommunications for the Disabled Act of 1982 and the Hearing Aid Compatibility Act of 1988 were needed to order the full restoration of hearing aid compatible phones. Similarly, it took an Act of Congress—Title IV of the Americans with Disabilities Act of 1990—to require all common carriers to provide telecommunications relay services, ending nearly a century during which deaf, hard of hearing, and speech impaired people scarcely had any access to the telephone network. That Congress understands the need for disability safeguards even when it otherwise seeks to apply a "light regulatory touch" to foster competition and innovation, was also reflected by the 1996 Act's various requirements for telecommunications and television captioning access.

Many of the above legislative mandates rested upon the well-established universal service obligation set forth in the Communications Act of 1934: to "make available, so far as possible to all the people of the United States . . . a rapid, efficient, Nationwide, and world-wide wire and radio communication service." All were undertaken with the recognition that the costs to society of *not* providing communications access

to modern innovations—in terms of unemployment, dependence, and isolation—would far exceed the costs associated with providing such access.

The FCC, too, has needed to take affirmative steps to remedy the failure of market forces to bring about disability access. For example, when the explosive growth of digital wireless telephone services in the 1990s threatened to eliminate TTY and hearing aid users' access to these services, the FCC mandated access solutions. Similarly, multiple FCC reports on the deployment of high speed Internet access have acknowledged that market forces are not enough to guarantee timely access to broadband services for Americans with disabilities. For example, the second of such reports identified persons with disabilities as a category of Americans "who are particularly vulnerable to not having access to advanced services."

So what do people with disabilities want in the new regulatory scheme that will govern the world of IP-enabled services? Congress must act to ensure that IP-enabled products and services offer the same wonderful benefits for people with disabilities that they offer to the general public. Most importantly, mandates are needed to ensure that IP-enabled technologies incorporate features that permit disability access *now*, while these products and services are still being developed, rather than later, when retrofitting them will become burdensome and expensive. If access features are considered and incorporated while a product is being designed, the associated costs become a mere fraction of the overall costs of producing that product for the general public, and the resulting access is far more effective. By contrast, if a product is designed without addressing access needs, it is not only more costly to later revise the product to include that access, but typically the result is not as well-suited to the population in question. For example, the initial failure to incorporate access in digital wireless phones resulted in an eight year delay in making those phones accessible to TTY users, and to this day, the digital wireless industry has not been able to effectively retrofit these phones for hearing aid users.

Fortunately, the beauty of IP-enabled technologies is that they use software-based solutions that make it easier to implement access features than had been possible with many previous telecommunications technologies. If incorporated early enough, software changes in mainstream products can be tailored to address a broad range of disabilities. And once implemented, most, if not all accommodations are likely to benefit large numbers of individuals without disabilities, the same way that closed captions—originally intended for use by people with hearing loss—are now enjoyed by members of the general public in bars, exercise facilities, and airports.

To achieve the goals of full accessibility by people with disabilities, we make the following recommendations:

1. Extend the Accessibility Safeguards of Sections 255 and 251 of the Communications Act to IP-Enabled services.

It is critical to extend the accessibility safeguards of Sections 255 and Section 251 (requiring telecommunications carriers to install network features, functions or capabilities that comply with Section 255 guidelines) to communications taking place over the Internet. The following are examples of the objectives that such accessibility mandates can achieve:

First, in order to ensure a seamless communications network that is equally accessible to all Americans, IP services must be interoperable and reliable, so that individuals using text or video have the same ability to talk to each other as do people using voice. As providers begin to offer new and improved IP services, each is likely to independently introduce an array of services designed to expand upon our nation's communications networks. But in the effort to get a jump on the marketplace, some companies may accidentally or intentionally ignore the need to make their products and services interoperable with those of their competitors. The result can be confusion and disorder for consumers, especially those with disabilities, who may find they are able to contact some individuals over a service they have purchased, but not other individuals using the same kind of service.

The deaf community has already seen this occur with respect to instant messaging and video relay services. With video relay service, people who are deaf and hard of hearing can, for the first time in their lives, converse naturally in American Sign Language with hearing people via connections made over the Internet and the PSTN. But because not all video relay services are interoperable with one another, people using this form of communication are not able to enjoy the same seamless access that is available to Americans using voice telephone services. Interoperability of networks and equipment that provide the same functions is not only important for day-to-day affairs; in an emergency or national crisis, all Americans need to be able to obtain assistance, regardless of the communication networks or devices that they use.

Second, within the IP environment, there also needs to be a common protocol for text that is easily combined with other media. At present, multiple industry standards exist for text transmissions over the Internet and for other kinds of text messaging, many of which are not compatible with each other. A single, reliable text standard needs to be supported by all systems, so that text transmissions can get through to their destinations to the same extent as voice transmissions, enabling deaf and hard of hearing people to enjoy the same integrated system of communication that is available to voice users.

Third, IP-enabled services must have electronic interfaces that are accessible to people with disabilities. In the 1990s, the increasing use of graphical user interfaces almost took the power of computers and information networks out of the hands of people who are blind or visually impaired, because these interfaces could not be read by screen reader software. Similarly, as traditional telephone and television technologies are replaced by IP-enabled technologies, many applications are becoming available only through graphical, touch screen, "soft-button" or "on-screen" interfaces that are not accessible to people who do not have the ability to see. Last week, this Committee watched demonstrations of innovative IPTV systems that will allow viewers to scroll through various channels, access personalized Internet services, and make the TV experience truly interactive. The advantages of accessing multiple functions—telephony, TV, Internet—through a single piece of equipment are enticing to people with disabilities, who may benefit from having a single connection for data, video, and voice connections. But blind people need to know which channel is on, ways to choose among menu options, how to turn on accessibility features, and how to operate controls independently. The only means of accessing these various features should not be through inaccessible on-screen menus. Similarly, blind people may not be able to use IPTV technologies if the remote controls used to operate these devices have "soft dynamic buttons" that change with each press of a button. Touch-screens, too, can pose problems: first, an individual cannot feel *where* the buttons are, and second, he or she cannot identify *what the buttons do* because they may change as the screens change.

Mandates are needed to require IP-enabled service providers to provide multiple—or redundant—means of controlling applications on IP devices. If a device's operations require one sense or physical ability—for example, hearing or touch—the user should be able to use other senses or abilities to control the equipment, to prevent creating new disability barriers.

2. Improve Enforcement of Accessibility Obligations.

Access obligations need not only be in place; they need to be properly enforced. Informal FCC complaints have proven to be ineffective as a means of enforcing compliance with rights associated with Section 255, closed captioning, and other disability issues. Over the past decade, only two formal FCC accessibility complaints have been filed, largely because of the burden and expense associated with filing one of these complaints. Reform of the Communications Act should add a private right of action allowing people with disabilities to enforce their rights to accessibility under Section 255, as well as any new accessibility mandates. This right properly exists for various sections of the Americans with Disabilities Act, the nation's primary statute mandating an end to discrimination on the basis of disability.

3. Reform Universal Service Programs to Address the Needs of People with Disabilities in an IP-Enabled Environment.

At present, only common carriers providing telephone voice transmission services are required to contribute to intra- and inter-state funds supporting telecommunications relay services. As we migrate away from traditional telephone services, contributions from IP-enabled services providers are sorely needed to both sustain the viability of these services, and to distribute costs fairly among all subscribers of communication services. Similarly, IP providers should have to contribute to other universal service (USF) funds that are used to support the Lifeline and Link-Up programs. Because the incidence of unemployment is so high among people with disabilities, it is more than likely that this population would also be affected by any cutbacks in those programs.

Conversely, USF monies should also be available to support IP services and specialized communications devices that may be required by people with disabilities. Some deaf individuals no longer purchase PSTN service, having already discarded their TTYs for webcams and computers that enable video communications. People with disabilities that rely exclusively on IP-enabled communication technologies should be permitted to choose whether they want universal service subsidies that go directly to end users—e.g., through the Lifeline or Link-up programs—to be used

as partial payment for their broadband service and equipment, rather than payment for PSTN service.

4. Video Access: Extend Obligations That Currently Apply to Video Program Providers to IPTV Providers; Restore Video Description Rules.

The closed captioning mandates enacted in the 1996 Amendments have successfully brought television programming to millions of deaf and hard of hearing Americans. Just as the FCC extended these mandates to services and equipment needed for digital television programming, mandates are critically needed to ensure the continued benefits of captioning as IPTV technologies take center stage.

In addition, as Congress goes about reforming the Communications Act, we request that it restore the FCC's rules on video description. Video description is a technology that inserts narrative verbal descriptions into the natural pauses of television programs to enhance television accessibility for blind and visually impaired persons. Although, in July 2000, the FCC tried to use authority assigned to it in the 1996 Telecommunications Act to promulgate rules on video description, that authority was deemed insufficient to support those rules by the U.S. Court of Appeals for the D.C. Circuit in November of 2002. While a few television providers still voluntarily provide this form of programming access, these rules need to be restored to provide blind and visually impaired Americans with greater access to television programming.

5. States need to be able to retain some authority over telecommunications relay programs.

Under Section 225 of the Communications Act, states are able to receive certification from the FCC to operate their own relay programs. Several of these locally operated programs have been directly responsive to the needs of their residents in ways that cannot be matched by a federal agency located across the country. Considerable innovation and improvements in relay services, including video relay services and speech-to-speech services for people with speech impairments, originated through state relay programs in response to the needs of their populations. If the jurisdiction for IP-related services generally becomes federal, states need to have the option of retaining oversight over their own relay programs, even where these programs utilize IP-enabled services.

CONCLUSION

Only Congress can ensure that people with disabilities—including the rapidly growing population of senior citizens whose advancing years often bring reduced vision and hearing—are not left behind as our nation migrates from legacy technologies to more versatile and innovative Internet-enabled methods of communication. For people with disabilities, communication access means the ability to compete on an equal basis for employment opportunities, benefit from educational programs, make sound financial and medical decisions, fulfill civic duties, and actively contribute to society as productive participants. Those who have the ability to obtain and use information have the power to make choices and enhance their opportunities for self-sufficiency. Mandates are critically needed to preserve the extraordinary gains achieved by more than two decades of Congressional efforts to promote full telecommunications access. We look forward to working with your Committee to carry this progress forward into the IP-enabled world.

DESCRIPTION OF ORGANIZATIONS

Testimony Presented on Behalf of:

Communication Services for the Deaf—CSD is a private, non-profit organization of, by, and for deaf and hard of hearing people that provides direct assistance through education, counseling, training, communication assistance, and telecommunications relay services, to more than three million people with hearing loss in more than thirty states across the nation. Established in 1975, CSD's objective has always been to increase the communication, independence, productivity, and self-sufficiency of all individuals who are deaf and hard of hearing.

Alliance for Public Technology—APT is a nonprofit organization of public interest groups and individuals, working together to foster broad access to affordable, usable information and communications services and technology, for the purpose of bringing better and more affordable health care to all citizens, expanding educational opportunities for lifelong learning, enabling people with disabilities to function in ways they otherwise could not, creating opportunities for jobs and economic advancement, making government more responsive to all citizens and simplifying access to communications technology.

Testimony Endorsed by:

American Association of People with Disabilities—AAPD is the largest cross-disability membership organization in the U.S. With more than 110,000 members across the country, AAPD is a national nonpartisan non-profit organization advocating for the political and economic empowerment of the more than 54 million children and adults with disabilities in America. AAPD promotes policies that support the goals of the Americans with Disabilities Act: equality of opportunity, full participation, independent living, and economic self-sufficiency.

American Foundation for the Blind—AFB is a national nonprofit whose mission is to ensure that the ten million Americans who are blind or visually impaired enjoy the same rights and opportunities as other citizens. AFB promotes wide-ranging, systemic change by addressing the most critical issues facing the growing blind and visually impaired population—employment, independent living, literacy, and technology. In addition to its New York City headquarters, the AFC maintains 4 national centers in cities across the U.S. and a governmental relations office in Washington, D.C.

Association of Late-Deafened Adults—Formed in Chicago, Illinois in 1987, ALDA works collaboratively with other organizations around the world serving the needs of late-deafened people. Through its chapters and groups around the country, ALDA promotes public and private programs designed to alleviate the problems of late-deafness and for reintegrating late-deafened adults into all aspects of society.

Deaf and Hard of Hearing Consumer Advocacy Network—Established in 1993, DHHCAN serves as the national coalition of organizations representing the interests of deaf and/or hard of hearing citizens in public policy and legislative issues relating to rights, quality of life, equal access, and self-representation. The member organizations of DHHCAN include the American Association of the Deaf-Blind, the American Deafness and Rehabilitation Association, the Association of Late-Deafened Adults, the American Society for Deaf Children, the Conference of Educational Administrators of Schools and Programs for the Deaf, Communication Service for the Deaf, Deaf Seniors of America, Gallaudet University, Gallaudet University Alumni Association, National Association of the Deaf, National Black Deaf Advocates, National Catholic Office of the Deaf, Registry of Interpreters for the Deaf, Telecommunications for the Deaf, Inc., USA Deaf Sports Federation, and The Caption Center/WGBH.

National Association of the Deaf—Established in 1880, the NAD is the oldest and largest consumer-based national advocacy organization safeguarding the civil and accessibility rights of 28 million deaf and hard of hearing individuals in the U.S. The mission of the NAD is to promote, protect, and preserve the rights and quality of life of deaf and hard of hearing individuals in America. Primary areas of focus include grassroots advocacy and empowerment, captioned media, deafness-related information and publications, legal rights and technical assistance, policy development and research, and youth leadership development.

Self Help for Hard of Hearing People—SHHH is the nation's foremost consumer organization representing people with hearing loss. SHHH's national support network includes an office in the Washington D.C. area, 13 state organizations, and 250 local chapters. The SHHH mission is to open the world of communication to people with hearing loss through information, education, advocacy, and support. SHHH provides cutting edge information to consumers, professionals and family members through their website, www.hearingloss.org, their award-winning publication, Hearing Loss, and hearing accessible national and regional conventions. SHHH impacts accessibility, public policy, research, public awareness, and service delivery related to hearing loss on a national and global level.

Telecommunications for the Deaf, Inc.—Established in 1968, TDI is a national advocacy organization that seeks to promote equal access in telecommunications and media for the 28 million Americans who are deaf, hard-of-hearing, late-deafened, or deaf-blind.

Mr. UPTON. Thank you all. Thank you all for your testimony.

At this point, we will do questions from members of the subcommittee, under the 5-minute rule as well.

Any idea how many different franchises there might be out there, Mr. Fellman? I have a guess, but I don't know if anybody really knows.

Mr. FELLMAN. Are you talking about cable franchises, Mr. Chairman? You know, I——

Mr. UPTON. Franchise authorities.

Mr. FELLMAN. Oh, franchising authorities. You know, I know that there are 36,000 units of local government in this country, approximately. I know a number of States, I think about 10, franchise through the State, many of which still give local authorities some role in the process. But I couldn't tell you how many actually do the franchising itself.

Mr. UPTON. My guess is there is probably about 10,000. Might be a little bit more, might be a little bit less.

What does the average franchise agreement cover? What type of different arrangements do they have?

Mr. FELLMAN. Average cable franchise, again, you know, I will tell you some things that I think most cable franchises cover, but in some ways, they are as different as the community needs that the address.

Many cable franchises cover right of way access kinds of requirements. Oftentimes, in my experience, those are regulations that one finds in a local ordinance addressing rights of way, as well as in the cable franchise. Many will contain access requirements for public education or government access channels. Some will have requirements for institutional networks that I mentioned briefly in my testimony. There will be internal uses of that institutional network for various local government-related issues, public safety, communications internally and otherwise. There are public safety related concerns in a franchise requirement for emergency alert systems on the local level. General categories of programming, the Cable Act, as you know, precludes the requirement of individual channels, but does allow a local franchising authority to address community needs by requiring categories of programming. Franchise fees for the use of the public property are covered. Bonding requirements so that damages costs to public property can be replaced without cost to local taxpayers. Most good franchises will have some enforcement mechanisms in there. In the last 10 years, I am very happy to say that many franchises have provisions for addressing transfers and mergers, so that the local community knows the company that they are dealing with, because many of these have turned over a few times.

So a lot of different things, but those are just a few of the major ones.

Mr. UPTON. Mr. Billings would you expand on that at all, based on your mayorship in Provo?

Mr. BILLINGS. I would agree that the things he has touched on. I guess for us, as a community, we look at what are the goals? What is it we are trying to bring about in our community, and certainly as we have negotiated those kinds of agreements, we have sought to have universal access. We want everyone in our community to be able to be serviced. We have talked about what is important in public safety kinds of settings, and what needs to be done to serve those needs. And then we have talked about other things we want to accomplish, and have tried to factor those in. And I think that our focus of legislation, perhaps even at the Federal level a lot of focus on those broader goals in trying to do things that allow those goals to be fulfilled as we do whatever it is we do.

I just think we have to remember that it is going to be a little bit different in every community. Those subsets of undergoals will

be a little bit different in every community, and we need to accommodate that.

Mr. UPTON. It is different. I am aware of one community, not in my district, by the way, or even in my State, that is currently negotiating an agreement, and they are trying to look at a number of different channels. I think they are actually looking at 2 or 3 of the public education governmental channels. They are looking for equipment that they can, themselves, use to broadcast. They actually are also trying to get a calling center located within the jurisdiction of the community, and it is just difficult for—help me through this argument. If you have got a wireless provider that is going to compete with that same cable company that is not going to use the same right of way. They are not going to need poles or dig up streets, yet they want to compete, offering the same services. What are your thoughts as to whether they will have to comport with the same types of arrangements that that cable company will be for that particular village, in terms of the services that Brecken-Morter Building personnel, a whole host of things that otherwise they, frankly, wouldn't need as they look to expand their services and actually compete to bring down some of the costs of the services that they would otherwise provide?

And I am out of time, so I will let you answer before I pass to Mr. Markey.

Mr. BILLINGS. I am sure that—there is a long answer and a short answer, and my attempt to the short answer would be that it is true that they are different. But even those wireless providers still have to have access to our rights of way to connect up that equipment that provides that wireless connectivity.

And so while there are differences, there are some very similar components to that as well.

Mr. UPTON. Mr. Fellman.

Mr. FELLMAN. Mr. Chairman, if I could add to that.

I think the particular specific rights of way obligations, obviously, you couldn't apply to a company that doesn't use the rights of way, at least on the same level. But the social obligations of providing government, public, and educational access, there already are set-aside requirements for the satellite companies. I think Congress ought to extend the public, educational, government access requirement to satellite, so like you say, they are all playing by the same set of rules, and the community can get the benefit of that local programming, regardless of whether they are a satellite subscriber or a cable subscriber.

Mr. UPTON. Mr. Markey.

Mr. MARKEY. Thank you.

Ms. Strauss, in closed captioning, back in the early 1990's, the industry opposed closed captioning. They said it would be too much of a burden on them. We said well, we need it to help out those 10 or 20 million people who are hard of hearing in America who use the TV as to—so we mandated it out of this committee, and the television industry did its best. Who would have thought the greatest use for it is people in bar rooms just watching basketball or football games?

But unintended consequences of sometimes Congress acting, and in fact, it turns out that most immigrant families turn on the TV

with closed captioning so that their children can see the language, because the parents can't speak it. So there are tens of millions of others that use it in different ways. So it is a real burden. We had to mandate that. And then there is others where we created a readily achievable standard for the industry to meet in different areas.

What would you recommend for the IP services? Which approach should we take?

Ms. PELTZ STRAUSS. Well, I would recommend the approach of an undue burden standard, which is the standard that is used with closed captioning. And the reason for this is that we are now at the outset. We are at the beginning of a new technology, and with the new technology, it is much easier to incorporate access, rather than retrofitting it later on.

The readily achievable standard was originally created in the Americans With Disabilities Act to make it easier for mom and pop in small stores not to have to retrofit with their—to put in elevators, to put in stairs. Not to have to incur great expenditures in retrofitting small establishments.

The undue burden standard, which basically says that an accessibility feature has to be incorporated, unless it is undue burden, is easier to meet when you are at the outset of a technology. And here, we have software-based technologies that are very easy to incorporate access.

Mr. MARKEY. Thank you. With the municipalities, back in 1992 when this subcommittee—we actually had to pass a law because cable companies were coming to communities and saying, you have got to give us an exclusive contract. If you want us to come to your community, the promise is you will never have another cable company in town but us. And so 95 percent of all municipalities had guaranteed a monopoly in perpetuity to the cable companies. So our subcommittee had to void all of those monopolies so that we could have some competition.

Now, we come to 2005, and a lot of people are now saying, well, maybe we should pass a law prohibiting the local communities from actually providing telecommunications services to their own community, in competition with the cable company, the telephone company, or whomever.

Can you give us your views on the appropriateness of Congress telling you that you can not have your own system to compete with a cable company or telecommunications company, as long as you provide equal access to everyone that would want to use it?

Mr. BILLINGS. I am a private sector player, came out of the private sector. Believe government shouldn't go where the private sector will go, and as I have in my testimony said, 8 years ago we set out to do a number of things. I said we wanted to bring about the benefits of technology to bless our residents' lives. And we fully expected and fully intended to use private sector provided connectivity. We had five franchise agreements in place with fiber providers. When it came time to hook up our traffic lights and our scada and our buildings, none would do it.

Mr. UPTON. No.

Mr. BILLINGS. None would do it. None would step up. And so we did. And I hope——

Mr. UPTON. You did it? The city did it?

Mr. BILLINGS. I would hope that you wouldn't preclude cities, especially small cities, especially rural cities, from being able to do what they need to do when others are unwilling or unable to do it.

Mr. MARKEY. I agree with you. Mr. Mayor—Mr. Fellman.

Mr. FELLMAN. Congressman, thank you for asking that question. Let me talk about a legal issue that piggybacks. I agree with everything that Mayor Billings said. In the existing Telecom Act in 1996, you have got language in Section 253 that says "States and localities shall not pass any laws prohibiting any entity from providing telecommunications services." And a number of States have passed laws, and in my opinion, in violation of the Act, by prohibiting their units of local government from providing telecommunication services. The FCC ruled that while municipalities are creatures of the States, they can do to them what they want, that case, as you know, got to the U.S. Supreme Court and the United States Supreme Court said that Congress was not clear on what it meant by any entity. So we thought that it was clear that "any" meant "any", but the U.S. Supreme Court did not agree, and——

Mr. MARKEY. I drafted, the provision, so you can tell them I meant "any"——

Mr. FELLMAN. Okay.

Mr. MARKEY. [continuing] in its usual use of the term.

Mr. FELLMAN. Had we known that, we would have brought you to the oral argument, but there is an opportunity this year to fix that problem, because the court would have ruled the other way if there was clearer language in the statute and clearer legislative record that "any" meant "any". So I would encourage Congress to fix that problem in the next iteration.

Mr. MARKEY. We will pay tribute to all of the municipal light companies across the country. We will pay tribute to the Bonneauville Power Company, to the Tennessee Valley Authority. There is a lot of times when they want to do it, the government can do it well. But if you don't do it well, they can vote you out of office, too. Okay? So you try to do this and it doesn't work, you have an accountable, you know, job that the voters can exercise their right. But I don't think it should be this Congress that tells you, our running municipalities that you shouldn't try to undertake these endeavors.

I thank you, Mr. Chairman.

Mr. UPTON. Ms.Blackburn.

Ms. BLACKBURN. Thank you, Mr. Chairman, and I want to say thank you to each of you for taking the time to come and——

Mr. UPTON. Could you just put the mic a little closer? Great.

Ms. BLACKBURN. These chairs are bigger than I am, Mr. Chairman.

Mr. UPTON. You are correct. A lot bigger.

Ms. BLACKBURN. Yes.

And while I do have the microphone, since I was in a meeting downstairs, I do want to recognize Debbie Tate, who is out of Tennessee. I think she was recognized a little earlier by my colleague from across the way, but she does a great job and I am proud to have her here.

I have got a series of questions. I am going to try to clip through these as quickly as I possibly can.

I think, Mr. Perkins, I am going to start with you. Or let me ask all of you this by Mr. Perkins' testimony. And I am on page four of his testimony. This is what he says. "Most people now agree the Internet is truly an interstate phenomenon, and individual States should not be in the business of regulating the rates charged for Internet services." Do any of you disagree with that statement, and if so, why? Go ahead.

Mr. FELLMAN. I will jump in.

Ms. BLACKBURN. Thank you.

Mr. FELLMAN. Congresswoman, I think that when you say Internet services, I am not clear on exactly what that means. Cable services today are regulated in a very limited way for basic cable. If video programming is provided over Internet protocol, I would take the position that it is a cable service, and therefore, would be subject to regulations.

Ms. BLACKBURN. All right. I am reading from his testimony, and that is why I wanted to see where you all stand on this, you know. Internet service is anything that is going to come over the Internet, and as we look at the Telecom Act, one of the things I look in terms of is we talk voice-over IP. We also know that everything is going to come over IP, and I just wanted to see if you all were in agreement or disagreement. It sounds like looking at your faces in the response—and knowing we are short on time now, that you probably would rather respond to that later. Am I reading that right from you all? And that maybe you would like to give me a written response? Am I reading that right from you all?

Mr. DAVIDSON. I will jump in, Charles Davidson with the Florida Commission.

I agree with the statement that States should not be in the business of regulating the rates charged for Internet service——

Ms. BLACKBURN. Okay.

Mr. DAVIDSON. [continuing] so I would agree wholeheartedly with that statement.

Ms. BLACKBURN. Okay. Thank you. Mr. Perkins also—in the same paragraph a little bit further down, you—to allow the rates——

Mr. PERKINS. Clearly, offers made about the technology of why a person should switch to VoIP and get rid of their wire line, you hare going to have VoIP providers coming in with the new technology advertising and saying you should chuck your old wire line. You should have voice-over Internet. It is the new wave of the future. There will be advertisements for that. People who are unfamiliar with the technology, you may end up with the tragedy that you had in Houston, Texas.

Ms. BLACKBURN. Okay.

Mr. PERKINS. They simply didn't realize the limitations. Consumer protection laws are needed—are in place and can cover this new technology to make sure that those ads are not promising more or less than they should.

Ms. BLACKBURN. Okay, excellent.

And Mr. Chairman, with that, I will yield back since we are in the middle of a vote.

Mr. STEARNS [presiding]. Gentlelady yields back.

Mr. Stupak.

Mr. STUPAK. Thanks.

Mr. STEARNS. I think what we are going to do, my colleagues are just going to continue here, and if Chairman Upton comes back, he will take it. So if you want to come vote and come right back, we would like to seamlessly go through.

Mr. STUPAK. Very good.

The two mayors there, you talked about local governments providing broadband services you have, and we do it in my district quite a bit, because we are the only ones who will do it.

But do you have any opinions on a private public partnership for broadband deployment, and where a local unit government would give rights of way to private companies to offer broadband? Have you been approached with anything like that or any opinions on that? Mr. Fellman.

Mr. FELLMAN. Congressman, I think that happens all the time, and again, that is one of those areas that there is as many different variations of that as the creativity of cities and the private sector can come up with.

I have a client in Colorado, a municipality, who is negotiating presently with a wireless provider to put wireless broadband throughout a very large city, many square miles. The city council is fairly conservative. They believe the city should not be in the business of providing service, but the city clearly wants to find a partner in the private sector to come in and get the city wired for wireless broadband. They are doing it in such a way where it is not exclusive. Anybody else can come in. They have looked at competing companies to see who they could get the best deal with. They have regular rights of way regulations so the next company that comes in will still have access to the poles. So it is not, by any stretch of the imagination, putting a stop to future competition, but it is a city that is saying we don't want to be in the business, but we want to find an industry partner who can come in and provide these additional broadband services to our community.

Mr. STUPAK. Anything you want to add, Mr. Billings?

Mr. BILLINGS. I was just going to say, in Utah, our State legislature has not caused it to be so that municipalities can not be in the business of deploying broadband, but we are not allowed to deploy the retail service ourselves. We provide the pipe, and then we enter into retail provider partner contracts. And so while it is a little different——

Mr. STUPAK. Right.

Mr. BILLINGS. [continuing] I think we are specifically touching on—that is how it is currently being done in Utah.

Mr. STUPAK. Okay.

Ms. Munns, what do you think would be the role of the States in a universal service reform? Can you speak to that a little bit about what role USF funds and a need for Congress to take those funds into account?

Ms. MUNNS. Yes, I think that there are things, again, that we have particular capabilities. We know the networks in our States, we are pretty good at knowing who needs what. We are good at accountability and doing auditing and that kind of thing. We recog-

nize the issues with the universal service funds and we want to be a part of giving them out where they need to be.

Mr. STUPAK. Do you think VoIP and broadband should be part of the USF?

Ms. MUNNS. I think, you know, that is something you are going to have to struggle with as you look at the size of the fund.

Mr. STUPAK. Just thought I would ask.

Can anyone give me a real world example of why it may be necessary for there to be State consumer protection laws until there is a Federal law? I am talking about, you know, the States have over VoIP or anything else to deploy that. Do you think States should be getting involved in this until there is a Federal law to sort of smooth this thing all out or mark it up even more?

Ms. MUNNS. I will take that.

You are talking with respect to——

Mr. STUPAK. Yes.

Ms. MUNNS. [continuing] consumer protection——

Mr. STUPAK. Yes.

Ms. MUNNS. [continuing] issues, and that gets back to what I was talking about before, which is when consumers are harmed when their expectations are not met, we find out about that first. They come to us for relief. To have to say we need to forward that to Washington so they can look at it, to the FCC or whoever to fashion a remedy for this. A lot of the experimentation, a lot of dealing with it, trying to find something that works is done first at the State level, and then the Federal Government acts. I don't think you want to take away the capability to address those things and find a solution that works. It may be something that you want to Federalize, but to say that you can't do that and that it has to start at the Federal Government, I think is backwards.

Mr. STUPAK. Okay.

Mr. FELLMAN. Congressman, there is a great example of that today that is pending that consumers are hanging out there, and that is do customer service standards and privacy protections apply to a cable modem service? And when the FCC decided a few years ago that cable modem service was not a cable service, but was an information service, one of the questions was "What about our customer service standards?" And at first, the FCC said well, we said it was an information service, so send your complaints to us. They quickly realized they didn't have the staff to deal with consumer complaints at the FCC, so they said no, continue sending them to your local governments, but it was not clear.

They have had a pending proceeding at the Commission for, I believe, it is over 2 years to determine whether customer service standards, either of the Federal standards that the FCC adopts, or local customer service standards, apply to consumer protection and privacy rights on cable modem service. It has been open for 2 years. Now, some communities have taken the issue into their own hands. Montgomery County, Maryland, is working on it, the city of Seattle has very robust standards that protect the privacy of their consumers on cable modems. But the industry, the cable industry, is fighting it, and they are saying you have got to wait for Washington to come up with an answer. We don't think you have legal

authority. So consumers are hanging out there on privacy protection related to cable modem.

Ms. PELTZ STRAUSS. If I can add for disability issues, States have been very responsive to the needs of their specific communities, especially on relay services and designing services specifically for people with speech disabilities and people who are deaf who use sign language interpreters.

And that is not to say that the Federal Government shouldn't have a role in setting some standards. Right now, we have a dual system where States are allowed to set standards that exceed Federal minimums, and that would be the best result.

Mr. STEARNS. I thank the gentleman. I think we have about 6 minutes left. I will take the liberty to ask a few questions here. If the chairman doesn't come back, then we will adjourn temporarily the subcommittee.

Mr. Davidson, we appreciate you being here. You have been kind enough to work with myself and my staff, and of course, from Florida, we appreciate your input. You have some very good ideas.

I noticed in your statement, you said "Efforts to pigeonhole new technologies into regulatory constructs will service primarily to delay the development and deployment of these technologies for the consumer." I think that is something I wouldn't mind you elaborating on. You know, I think it has been reported the United States has dropped from 13th to 16th in broadband penetration, and one of the main reasons was lack of competition, vibrant competition. But the term "pigeonhole technology" might just elaborate, if you could.

Mr. DAVIDSON. Well, I will. That new statistic is troubling. I sometimes think, though, as a country we are not as bad as sometimes it is portrayed. We have an absolute sort of high level of penetration in terms of people, and when you compare the U.S. to China, they have got a lot more people, so the percentages are going to be off.

When I said "pigeonhole", the regime that exists was designed around telecommunications, and it distinguished between telecom and just everything else. And everything else includes, according to some, cable modem service. Some will argue that as a telecommunications component, it would include the VoIP service that I use at home. I don't have a telephone; haven't for a year. And when you tell sort of these new entrants, whether it be Vonage or someone else, that you are going to have to comply with the telecommunications obligations, the regime that exists now, I think they are not going to be able to raise the capital. They are not going to offer the service. It won't come to market. There may be some providers, really large, established providers, who may vary an offer and say you know what? We can comply with the telecommunications regulations and we will do that. But we want sort of the dynamism that we see with a lot of folks out there competing with their services and offerings in the market. And we need to somehow encourage that and we need to empower the consumers to be able to make the choices they want for their new technologies.

I, as a consumer, made a choice. I do not want a telephone, so I made a choice to go with VoIP service. I might not have had that

option. I might have had such a really low bill for my voice service at home had the company been pigeonholed into the telecom box.

Mr. STEARNS. I think I am going to have to go vote, so I think I will temporarily suspend the committee, and the chairman should be here and we will resume. So I appreciate your patience here.

[Brief recess.]

Mr. UPTON. When we left, there were going to be two votes, and they changed it to one. So if it is two, we are going to be running pretty fast, so I told the other members that, but in order to keep going, we will go a little bit out of turn, I guess, and go to Mr. Bass for questions.

Mr. BASS. Thank you, Mr. Chairman, and I want to first apologize for—I assume obviously everybody has given their testimony. I am not familiar with everything that you have said, but I understand the gist of the subject matter here today. And I just want to ask one question.

I think that there were some that talked about the issue of core social obligations. Maybe it was you, Mr. Fellman. And I guess the question is core social obligation or economic redlining, I think you mentioned—I don't know whether you mentioned it or not, but 911 consumer advocacy, and so on. Local PUC's and local communities have traditionally had the responsibility of monitoring these functions. Is there any problem with having that responsibility handled on the Federal level? Universal service might be another issue, I think, because 911 in community A is no different from 911 in community B or in State A versus State B and so forth. Is that a—do you understand that question?

Mr. FELLMAN. I understand the question and I think for each of the core social values, you have to look at them differently. Some may make more sense to be dealt with on the State level, and I am not an expert in telling you whether 911 would be negatively impacted if it was all Federal versus all State. I would tell you, particularly with respect to the access channels, which is a core social obligation, in my opinion, there is no way that the needs of Detroit are the same as the needs of Kalamazoo or the needs of some small community in the upper peninsula of Michigan. And to have a Federal rule that says here is what the local needs are and here is what the obligation of a video provider is going to be, there is just no way to have that work on the Federal level.

Customer service standards, which I mentioned briefly while you were out of the hearing room, again are something that some communities are active in the way they enforce them. Others have a much lighter touch. In large part, they are a function of the history of the service providers in the community and what kinds of problems they have had, which is why I think the system we have today with cable and customer service works. We have Federal standards that communities can adopt and in fact, most do. They just adopt the Federal standards. But they also have the ability, if there are particular problems in particular communities, to adopt different, and in some cases, more stringent local standards that can be enforced at the local level.

Mr. BASS. Make it quick, because I want to ask one more question before—go ahead.

Ms. MUNNS. Well, I think, you know, who should be subject to e911 is certainly a Federal decision, because you don't want that to differ from State to State. But it is something that should be clarified is of these services, who has to provide e911, so that we all know.

With respect to complaints, we did a quick survey of 20 States who processed over 200,000 complaints in 2004. That was 20 States, not including California. This is something that I don't think the Federal Government really has the capability to do.

Mr. BASS. Different question.

What is your—what are your observations concerning government action, if any, when the day comes that non-cable providers start providing cable services in communities without paying franchises, if that happens? Franchise fees.

Mr. FELLMAN. Well, I guess that can't happen unless Congress changes the law, because the way video programming is defined in Title VI of the Communications Act right now, when non-cable providers begin providing video programming over facilities that are located in the rights of way by statutory definition, that becomes a cable system and they are prohibited from providing those services unless they have a cable franchise. So clearly, Congress could, if it chooses, change that system and eliminate cable franchising. I think that would be a terrible mistake, again, for the reasons that I went into in great detail in my written testimony, because there are so many elements of cable which are purely local, and community needs on a local level will not be met if cable franchising is taken away or general national rules are imposed at the Federal level.

Mr. BASS. Okay. Chairman, I don't have any other questions. Thank you.

Mr. UPTON. Mr. Boucher.

Mr. BOUCHER. Thank you very much, Mr. Chairman. I want to extend thanks to our witnesses for their illuminating testimony today.

I was particularly pleased to hear the comments of Mr. Fellman and Mr. Billings concerning the appropriateness of community networks, just as electric utility service was provided by municipal utilities beginning in the 1880s, because the commercial providers bypassed a lot of communities.

We have a parallel situation today with regard to broadband. We saw a disturbing report this week that says that the United States has now dropped two more positions from 13th to 15th in ranking internationally among nations in broadband penetration, measured as a percent of the population using broadband. We stand at 11 point something percent of our population currently using broadband, and we are now 15th in the world. And I think local governments have a role to play, particularly as you suggested, Mr. Fellman, in rural areas and in some cities which have small populations in offering a service that the commercial sector either has not provided or only provides at such a high price that it is effectively unavailable for residents and much of the business community.

I have two municipalities that I represent that have deployed fiber optic networks, and these are very popular services with my

constituents. One of those only provides broadband high speed Internet access. The other one provides comprehensive telecommunications services. And both are treasured in the communities where they are located. And the penetration rates for broadband there are higher than the national average. So I think there is a role to play. I was glad to hear your testimony.

I want to follow up on the inquiry that I believe Mr. Bass was opening. I didn't hear all of what he said, but we need to have a delicate and serious conversation about franchising. And let me sort of state a couple of principles.

First of all, there are a lot more franchising authorities than I think we are acknowledging. In the Verizon service territory alone, I am told there are 10,000.

And so the real number nationally is some multiple of that. And Mr. Fellman, I think you suggested 36,000 local franchising authorities across the country. That is probably a more accurate figure. Let us say 40,000 for sake of conversation. If a company like Verizon, that has to get 10,000 franchises in order to offer video, whether it is IP-based or whether it is just digital cable, is able to average one franchise a day, it would take about 40 years in order to get them all. This is every business day of the week getting one. Now maybe they could do a little better than that, but I kind of doubt it, given the necessity of devoting a lot of manpower to the effort, and whatever the cost of that might be.

And I think, you know, to the extent we have delays, consumers in these communities are denied the benefits of competition, more varied services, the pricing competition that inevitably comes when you bring new providers into the market. And that is an undeniable benefit for residents across the Nation.

In addition to that, the local governments are denied that second or third or fourth franchise fee, which would multiply by orders of magnitude the amount of revenue that you get from your franchise. And I am just wondering if we can't embark on a conversation. I don't have a fully formed view of this. If I did, I would announce it and tell you what it is. But I am persuaded that we need to do something different than what we are doing. The opportunity for telephone companies to get into the market, for fixed wireless providers to get into the market, I think really argues for a new construct.

So let me just try out on you a set of principles, and I would like your response to this potential.

Let us suppose that we had a national franchise, and it contained certain elements to be discussed and agreed upon. But among those elements would be that you get paid, that whenever a multi-channel video provider offers a service in your community, you get an amount of money tantamount to the existing franchise fee. So we take money off the table; you get paid, and you get paid every time another provider comes in.

Let us also assume that one of the elements of this national franchise is public access channels. So public educational, governmental access would be afforded by the new entrants just as it is by existing cable.

Now if we do this, I mean, first of all, you get a lot more money real fast. The companies are able to roll out their services very fast.

Your consumers get a lot of advantages very quickly, in terms of competition, new kinds of video being offered, better pricing.

What would you think about that, just for starters. What is your response?

Mr. Fellman.

Mr. FELLMAN. Thank you, Congressman.

You had said that you don't have a fully formed opinion. I have a partially formed opinion.

Mr. BOUCHER. Okay. That is better than fully formed. Partially formed on both sides is good.

Mr. FELLMAN. You know, I think it is a conversation worth having. I am not in a position today to say this is a great idea, or this is a lousy idea. I think the conversation would have to try to define what are those elements that are purely local. What are the local police powers? But I think if there is a way to streamline the process, it is absolutely appropriate to be talking about it.

There is an analogy that is taking place right now, which is an initiative started by the National Governors Association. It talks about telecommunications taxation where the Governors and the State legislators and local mayors and the telecommunications industry are talking about telecom tax reform. I think that has been a good process yet, and I hope it will be successful at some point.

On the issue of franchising, however, I think there is a lot of people that need to be at the table and discussing it. And I want to make one clarification when I said 36,000. It is units of local government. Not all of those are franchising authorities, so I am not sure that I would agree with you that we have got 40,000 franchising——

Mr. BOUCHER. I don't know either. I am just taking a number I know to be reasonably accurate in the Verizon territory and extrapolating from that.

Mr. FELLMAN. You have mentioned two key issues, the compensation for the public rights of way and the PEG channels, and if those were guaranteed to address local issues or local needs in some way, you know, that is a great start. I think there is—the only problem with public access issue that you mentioned that jumps right out at me, that when you say it would be guaranteed at the Federal level. Again, what is necessary in a small municipality that you represent may not be the same thing that is needed in a larger municipality. So somehow, there has got to be that local negotiation for what community needs are. Otherwise, in order to protect local franchising authorities, you have to error on the high side. And that is something that is not fair to the industry.

Mr. BOUCHER. Well, this is open for discussion. I mean, obviously we would have to learn a lot more than we know today before we go forward. But I am encouraged by your response. I mean, it sounds like this is a conversation we might be able to have, and I look forward to working with you.

Mr. Chairman, with your indulgence, let me just ask Mr. Billings, and then I see Mr. Davidson wants to respond, too.

Mr. BILLINGS. Thank you very much. I believe it is a conversation that if you do have it, we want to be a part of it. I guess I am sitting here in my mind wondering if there isn't sufficient manpower commitment to come into my community and negotiate a

franchise agreement with me, is there going to be sufficient H.R. commitment to put in a system and service that system once it is franchised and be responsive to my customers.

So I see your point and I know what you are driving at, but I think it is one we would thoughtfully want to reflect upon and be a part of the conversation as well.

Mr. BOUCHER. Let me just add one more element to this. This could go on until dark, and I am not going to carry it on until dark, but it wouldn't upset me at all if you came back with a proposition that said we love being paid, we love the idea of PEG channels, but clarify our authority to offer community networks at the same time and now we might have a deal.

And so if you came back with that kind of response, you wouldn't upset me in the slightest.

Mr. Davidson.

Mr. DAVIDSON. Thank you, Congressman.

Conversation is a great idea that has to occur. I also think that national rules would provide certainty to a whole host of new entrants who are wondering what is going to happen in various States. The government getting paid is a good thing. State and local governments need money.

My concern is if right now in a region, hypothetically, a franchise fee revenue is $1 million. If new entrants come in to offer services, any sort of extension in franchising fee payment obligations, in my view, ought not reflect the new tax. The revenue ought not go up to $2 million; rather, it ought to be some allocation of that $1 million across a pool of similarly situated participants, unless the actual cost of local government goes up.

Another sort of challenging area is you have got traditional cable, video-over IP, which has a capacity to compete with cable, and you have video-over fiber to the home or fiber to the node, which cable will say is closer to cable. What do we do, for example, when turn key programming—and it is out there, sort of full programming comes just over the IP network and it is not based upon any sort of location of facilities in an area, and there is just a company that is providing programming over the Internet.

Mr. BOUCHER. I think we impose the same rules. I mean, that is my initial response to you.

And by the way, let me add, I believe that whatever we do for telephone companies, we also have to do for cable. We have to be even handed about this.

So there are real challenges in this subject matter. This may prove to be one of the most interesting and challenging aspects of our reform effort, but it is one I am sure we are up to, particularly with your participation.

Mr. Chairman, my time expired a long time ago.

Mr. UPTON. Yes.

Mr. BOUCHER. Thank you very much.

Mr. UPTON. And for a little while you were safe, because the other members hadn't returned, but they now have. And I would recognize Mr. Inslee for 5 minutes.

Mr. INSLEE. Thank you.

Mr. Fellman, I just came in the last part of your answer to Mr. Boucher's question. I just wonder if you can flesh out a little bit

for me, if we were going to go to, let us say, you knew today there was going to be a statewide or national kind of franchise standard. What are the parameters of where you would put in how many access channels, how many hours, how many, you know, build-outs, how many miles—I mean, what parameters would you have to have to meet sort of the menu item of where you are right now?

Mr. FELLMAN. Congressman Inslee, your question, I think, discloses why this would be so hard to accomplish. Because the answer is different in every different community, so I don't know.

Congressman Boucher asked if we can start that discussion, and I think I am always willing to talk about anything, you know. "No" is always an appropriate answer in any kind of debate or discussion, but I think it is inherently difficult, extremely difficult to come up with a national rule on how to meet the local needs of every municipality and county in this Nation.

Mr. INSLEE. So I am trying to get a flavor of how far the spread is, like in your State, what is the smallest number of—let us start with number of access channels in a franchise——

Mr. FELLMAN. That is easy, zero.

Mr. INSLEE. Zero.

Mr. FELLMAN. Right.

Mr. INSLEE. Okay. So zero in your State? There is no access channels in——

Mr. FELLMAN. Well, no, the smallest number.

Mr. INSLEE. Smallest number.

Mr. FELLMAN. There are communities in my State that have no access channels.

Mr. INSLEE. And what is the highest number?

Mr. FELLMAN. Well, I think Denver has eight or nine. Some of them are used internally for internal communications. It is somewhere in that range, maybe a few more or maybe a few less.

Mr. INSLEE. If you went around the country—I am just brainstorming here. I haven't thought through this. It doesn't mean I have bought any of this Kool-Aid at all, but I mean, if you were to go through and say well, if you looked at communities based on population size, when you get over a million you have—I wonder if you would find sort of fairly consistent patterns between population bases and number of access channels. Do you think you would, or not?

Mr. FELLMAN. I don't think you would, and here is why: because it is not simply a function of population. And the example that I can give you from my State is the city of Durango in southwestern Colorado. A stand alone city, about 40,000 people. They are out there by themselves. They are the big metropolitan area in southwestern Colorado. They have an incredibly robust government access and public access broadcast operation. They get private donations as well as city money and cable money that promotes this kind of programming, and it is widely watched in that community.

The city of Lewisville, Colorado, same population, about, in metropolitan Denver. A very different community; part of a much, much larger metro area of 2 to 3 million people and growing, and the needs in that community are different. So the number of channels, the amount of money that you would want for equipment, the type of programming that you would want to be producing, you

know, you can say that all councils are going to want to broadcast their city council meetings and their planning commission meetings, but beyond that, it changes dramatically from community to community, regardless of the population.

Mr. INSLEE. In the States, I am told that some States have statewide franchising protocols now. How would you characterize the differences there than other States that have really local decision-making? Is there any way to generalize there or not?

Mr. FELLMAN. A little bit. But now, we are getting a little bit out of my area of expertise. I know some States have more control in their local franchising. Others, like New York and New Jersey, the State will approve the franchise but the local government is allowed to and does, indeed, do the community needs assessment and negotiate based upon their local needs and ultimately, it just is given to the State to be adopted in accordance with State rules. So there are some heavy State control operations, and there are some partnerships where the local governments have a lot more control. So it just varies from State to State.

Mr. INSLEE. Does anyone else want to add to that at all?

Ms. MUNNS. I will just add. I have a list of the States that do that. I know that they have varying models, and we would happy, if it would help the subcommittee, to try to provide that information.

Mr. INSLEE. That would be interesting. Thank you.

Mr. UPTON. Mr. Gonzalez is recognized for 8 minutes.

Mr. GONZALEZ. Thank you very much, Mr. Chairman.

Let us see if I can try to make sense of it all. Well, that is kind of impossible in Congress, but technology moves forward. Old technology is replaced or augmented or whatever by the new technology, and that is what we are really facing here.

In the old days, what was a telephone company, what was a Bell, what was a cable company, and they call this—they had all these fancy names about convergences and such. But we have to find some answers working with the States and localities that have very legitimate interests.

My concern is it really a monetary interest, the fees in any kind of form, or is it really what you all have referred to, public requirements, social needs, social regulations. And some of it can be very reasonable and legitimate, and others can really be quite burdensome and really interfere with what we have to do in this country in order to utilize that technology to its fullest and its greatest advantages.

So I guess my question—and Mr. Fellman and Mr. Davidson in particular, because I was reading your testimony. I think you all touched on it more than anyone else. Is it—when you say local needs, social needs, social requirements, is that really the main consideration, or is it really one of fees? In other words, revenue sources. Because it is—I don't know how we reconcile some things, to be real honest with you. So that is the first question.

And the second one, because what happens is time gets all used up, except I did get 8 minutes here. Second question would be to Mr. Fellman. You said something that was really interesting, and I believe before we broke for votes, something to the effect that, I guess, if it is video coming in on IP, then it is cable. In other words,

what is the final product that is being delivered or whatever it is, determines its nature, not the means or the method or whatever.

And so when you all get through the first question about not the competing, but what weight do you put on fees, revenue sources, than these other needs, social needs and requirements?

Mr. FELLMAN. Congressman Gonzalez, thank you.

You know, I could be flippant and say the answer to your first question is yes, because they are both important. Clearly, if my city were to lose the franchise fees that we generate from cable, basically the rent that we charge private entities who use public property in order to generate a profit, it would be a huge hit on our general fund. It translates into police officers, it translates into library hours and rec centers and it would be a real hit on the local essential services that we provide. And frankly, I think it would be analogous, too, if the Congress said, you know, if it is all just about money, maybe we shouldn't option spectrum anymore. We want these services, maybe we should just give it away to the companies. It is the same thing. We are talking about our local public property; you are talking about Federal public property that the Congress has responsibility for. So the money is very, very important.

But the social obligations are, as well, and I am intrigued by your comment that there are some that are very, very burdensome, and I think if we are going to have a discussion, a conversation going forward, I would be interested in if you have more specific questions of what those are and how they work, we would be happy to follow up with you and get you and the subcommittee more additional information.

I think cable has been very successful. There is more broadband through cable systems than any other method, and they are the ones that have been following and abiding by these social obligations for many years, and yet, they have more penetration than any other source of broadband, as far as I am aware, in this country. So I don't think that they are too burdensome in order to allow our consumers to utilize these technologies.

You have got to remember, cities and counties are some of the more larger and sophisticated users of these technologies as well. We don't want to slow down the process. We want the competition and the new technologies in as quickly as we can get them, but we think it is also important to maintain these social obligations. And I think they are all equally important, but would be happy to get more details to you if you have questions about specific ones.

Mr. GONZALEZ. Mr. Davidson.

Mr. DAVIDSON. Thank you.

On the social requirements, my answer too would be yes to the question. But on the social requirements, I think what Congress has to ask itself is okay, what is the social pact that we are engaging into? Certainly, a 911 obligation or certain consumer protection regime wouldn't necessarily apply to a sky technology that you and I might just download on our computers to chat. But society has determined aside from the fact that telecommunications was provided by monopolies, that 911 service is important. It is an important component of our society, so going forward, for those providers that may engage in a social contract may use North American numbers or do something else that is utilizing a public resource, it

is fair to say, you know what, you probably need to come with a way to comply with a 911 standard.

I think the money issue is very important, and I look at that from two angles. One angle, in Florida, State and local governments—local governments are scared to death that as these new technologies emerge and as customers move to these new technologies, they are going to lose revenue. They want—many want to be able to tax VoIP that is a substitute for plain old telephone service, because they are afraid they are going to lose the revenue from that. Cable franchising authorities are really concerned about losing the franchising-free revenue as video over IP rolls out. If I disconnected my cable, and lots of folks in my area disconnected their cable because they could get the programming they want, whether it is all sports, all entertainment, whatever, over their IP network, that scares folks because cable is going to have a hard time competing. And if these new providers aren't paying the funds, government loses.

But I look at the money issue from another angle as well. That, to me, is one compelling reason why we need a national policy on these issues.

California just went through what, in my view, is a failed experiment with their California Bill of Rights. With all the best intentions, they came up with this regime that went all the way down to the detail of saying you must put your contract in 12 point Times Roman font. If every State engages in that type of regulation, well intentioned, you are going to have millions, if not billions, of additional costs that in a competitive market will get passed on to the consumer. It is going to come out of our pockets. I don't want my bills to go up because States have lots of good ideas. If we have good ideas, let us nationalize those. Let us have the conversation, talk about what the good ideas are, move forward with those, and perhaps have a safety valve so that when unanticipated situations come up, States do have the flexibility to address those issues.

Mr. GONZALEZ. Thank you. It is only 1 minute, and I can talk to Mr. Fellman later about the cable and voice and such, but I think I have other witnesses that wish to respond.

Ms. MUNNS. I would just like to respond to what Commissioner Davidson just said about the failed experiment in California with the Bill of Rights.

California began looking at a Bill of Rights for wireless because of the significant increase in complaints that they had. Their customer expectation was not being met, and they started looking at a Bill of Rights in order address this. As a result of that, the industry came forward and said let us take a crack at getting this solved voluntarily, and made significant strides to addressing some of the issues that had been raised. That Bill of Rights, that idea I don't think is going forward in California. And to that extent, I think that, you know, you can call it a failed experiment, but it did have a good result, and we didn't have to go to national standards to get some voluntary compliance on behalf of the industry.

Mr. GONZALEZ. Thank you all very much.

Mr. UPTON. Mr. Engel.

Mr. ENGEL. Thank you, Mr. Chairman. Before I ask my question, I would like to acknowledge that Tom Dunlevey of the New York

State Public Service Commission is in the room. I would like to welcome him.

Obviously, we are soon moving to draft legislation to update our telecommunications laws, and as new technologies have made older ones obsolete, the rules and regulations that govern this industry need to be updated as well.

The introduction of VoIP has really made a profound change in the industry and it is introducing rapidly a new level of competition to the voice market. Now soon, we will have a new level of competition in the video services market as well, and I am committed to personally getting this new competition swiftly into the market. But I believe that we need to ensure that there is a level playing field, a fair and level regulatory playing field, such as must carry public access channels and franchise fees and rates. I believe very strongly that consumers will benefit when there are multiple entrants into the market for communications services, whether it is voice or video. Cable is the dominant provider of video, and telephone companies are the dominant power of voice.

So in line with that, I have a question I would like as many people who would like to answer it as possible to answer.

So any of you see where we can streamline the process for getting more competitors into the voice and video markets, and specifically, what steps are your States or organizations taking, and what should we and the FCC—we meaning Congress and the FCC should be doing? If anybody would care to answer that, I would be grateful.

Mr. DAVIDSON. I will jump in just briefly on Florida's approach.

Florida has taken the approach that if we remove some of these regulatory hurdles that market conditions will be created and folks will be encouraged to enter. So Florida has deregulated VoIP as provided that broadband, regardless of the provider platform is not subject to local government control. Recent legislation that is sort of making its way through both chambers makes clear that both of those platforms, however, remain subject to the State's generally applicable deceptive trade practices, consumer business protection, statutes, fraud statutes, so that customers sort of are protected and have a remedy.

But what we have seen with that now is that the State is a target market for Verizon to come in and build out fiber to the home to deliver video. It is one of the largest markets for Vonage. We have numerous cable companies offering telephony, so we are trying to just sort of as a market principle, remove some of those hurdles to competition, and we are seeing in Florida that that competition is, in fact, occurring. And I know everyone would like to have it all here immediately, but there are clearly progressive steps that are occurring in Florida, and the competition is coming.

Mr. ENGEL. Thank you.

Mr. PERKINS. Congressman. I am sorry.

Mr. ENGEL. Go ahead.

Mr. PERKINS. I think as we pursue that area, we need to keep in mind that there are large rural areas in this country, including Iowa, where it is not economically feasible for cable providers or telephone providers to come in and put in DSL. In Iowa, we recently—our legislature passed legislation that deregulated over

time the rates that Quest could charge for its residential phone rates, but as a quid pro quo, Quest was told you have to get DSL into a lot of different exchanges where you don't have it. Quest wouldn't go in there. It wasn't economically feasible.

So while it is great to say in some of these areas, large metropolitan areas where everybody wants in, there are a number of areas where nobody wants in. The cable provider doesn't want to extend its cable out for four customers out in the countryside. DSL has limitations on how far it can go. I live in the city of Des Moines and I can't get DSL because I am more than 3 miles from a switch, but I am not certainly out in rural Iowa.

So I think as the committee looks—the subcommittee looks at legislation, it is important to keep in mind that there are economies that these providers look at that dictate how much they want to do, and there needs to be incentives, I think, such as the Iowa legislature just provided to Quest, if you want this extra money, you better get your DSL in all of the exchanges in Iowa, rather than just the ones that you think you can make a lot of money at.

Mr. ENGEL. Thank you.

Mr. Fellman.

Mr. FELLMAN. Congressman, I would like to give you an anecdotal example of what doesn't work, and then give you—reiterate something that I said earlier that I think will.

In Colorado in 1996, the same year that the Telecom Act was passed, our general assembly passed legislation that prohibited local governments in Colorado from being in the franchise business, if you will, with respect to any communications service other than cable television. No franchises on any kind of communications service other than cable, no charges for permit fees, other than the actual cost of administering the permit process. No requirements. Companies had the right to be basically on public property for free. Do we have more broadband in Colorado today than you have in New York or that you have in Iowa? Of course not, we don't. The market is going to dictate where these services are deployed, and rural Colorado ain't the market where they are being deployed first. Even outside of the highly concentrated metro area, that is not where they are. So to simply say we have got to make franchising go away is not going to solve the problem, because the companies are going to go where they can make a profit.

And that brings me back to what Mayor Billings talked about, what I mentioned earlier. One way to encourage more deployment and more competition is for Congress to make absolutely clear in the next piece of legislation that comes out of this city that no legislation shall be passed that prohibits States or their political subdivisions from participating in a provision of telecommunications infrastructure and services. And when smaller rural communities start getting into the business and showing that it can be done and it can be done profitably, then the industry will follow.

Mr. ENGEL. Thank you.

Unless there is anybody else who cares to do——

Mr. UPTON. If you have another question, go ahead.

Mr. ENGEL. Well, let me ask Mr. Quam.

In your testimony, you mentioned the 911 systems and the need for new services to work with them. We all agree. I don't think

there is anyone on this subcommittee or committee who wouldn't agree.

But I want to ask you about the allowing the States to impose a fee on these services to support the 911 services. We had a situation in New York, you know, Congress has passed legislation to clean up the abusive 911 funds, but States can opt out if they forego Federal funding.

So I would like to know, what are the States doing to ensure that taxes collected on these existing technologies are actually going to upgrade the 911 networks? Has the National Governors Association undertaken any kind of creating a transparent audit process for States to use? There was an instance in New York, actually, where I am from in the Bronx where there were four young boys who drowned off City Island. They called 911 on their cell phones, but they got through to 911 but the center couldn't locate them because the 911 funds weren't used for their intended purpose. And so that is why I am asking this question. Have there been any studies or anything you can care to shed some light on this?

Mr. QUAM. The 911 services are absolutely critical to Governors and States and having systems that work so when a consumer calls, they actually find an emergency provider that can find them. I think it is a priority issue for all Governors.

The National Governors Association, although we haven't taken on anything like auditing authority or that type of oversight, because these really are State programs, we have partnered with the FCC to try to help build some best practices and have e911 operators and implementers really talking to each other and see if we can't get these programs going.

With regard to some of the issues regarding the fees that are collected, because they are State issues, really those decisions for the levels and the fees need to be made by the State. I do know that several States have made attempts to streamline that process or simplify those systems to make sure the money that they are collecting is the money that is needed to implement those systems. But from a national Governor's perspective, the most important thing is actually getting systems up and running that work. And that is where most of the focus is.

I think last year's legislation sent an important message from Congress regarding the use of those 911 fees. I think Governors are on board with that being a real priority to have a system that is up and running, and that works.

Mr. ENGEL. Thank you. Thank you, Mr. Chairman.

Mr. UPTON. Mr. Bass, you don't have further questions?

Mr. BASS. Can I ask one more?

Mr. UPTON. Yes, you can.

Mr. BASS. This may be pretty fundamental.

Why do we need franchising for new cable services when we don't seem to need it for anything else that we provide, for example, wireless voice data? Anybody have some observation? What is the difference?

Mr. FELLMAN. Congressman, the primary difference in at least some of the examples you just—comparison examples you mentioned are the use of public rights of way. We need to remember that the facilities that most of the cable systems are located on

public property whose primary purpose is to safely and efficiently move traffic of all kinds. And when streets are dug up and not repaired properly, there is a whole host of problems from the surface problems with traffic safety issues to the problems caused by cuts in electric lines and gas and water pipes. So there is a whole lot of regulatory oversight inherent in the use of public rights of way for a private company to operate its business, when that clearly is not the primary use that that property was intended for.

The other issues—and we have talked about them, so I don't want to be redundant——

Mr. BASS. Yes.

Mr. FELLMAN. [continuing] but the 5 percent franchise fee is not the only compensation for the use of that rights of way. I think Congress has, for a long time, recognized whether it be broadcasting where there were public interest obligations in return for use of the public airwaves, or the public set asides for satellites now, or the social obligations I have talked about and some of the other witnesses have talked about. With cable, a part of this is compensation and a recognition and a policy in this Nation that these media are essential tools for the use of our democracy by our citizenry. And I think that is an important concept to remember and to ensure that it continues with the new technologies we are going to be utilizing in the future.

Mr. BASS. Okay.

Mr. UPTON. Well thank you. Thank you all for your testimony. We have had a number of hearings on this issue, as you and certainly those in the press know, but others that have watched. I think we have had four lengthy hearings over the last 2 months. I think that the record is a good one. Our goal is to have a bipartisan effort for sure, and continues that we will try to get this legislation to the House floor by our August break. I am committed to seeing that we do that in a timely manner. And we appreciate your thoughts and interests, and the participation of all the members of this subcommittee.

And with that, we stand adjourned.

[Whereupon, at 4:19 p.m., the subcommittee was adjourned.]

[Additional material submitted for the record follows:]

May 26, 2005

Representative Cliff Stearns
2370 Rayburn House Office Building
Washington, D.C. 20515

Dear Representative Stearns:

Following are the answers to the questions which you posed to me as an addendum to the record for the hearing entitled: "How Internet Protocol-Enabled Services Are Changing the Face of Communications: A View from Government Officials;" which took place on April 27, 2005. Thank you for allowing me the opportunity to respond.

Question: Do you think that by allowing you to operate telecom networks, that this will help increase competition?

Answer: The primary motivations for why public power systems provide broadband services are community demand and economic development. Community demand is usually driven by the failure of the market to provide specific services at reasonable prices that the community needs to grow and prosper. Economic development considerations also play an important role because public power communities want to ensure that they have access to essential infrastructure and services needed to compete in today's global marketplace. Without affordable broadband service, it is difficult for communities to retain existing businesses and attract new ones.

Providing competition in the communications marketplace is not the primary driver of public power entry into that marketplace. However, one of the many benefits of municipal broadband is that it does increase competition. In communities where there is an existing incumbent provider of service, the presence of public power broadband drives down prices and benefits consumers. In communities where broadband is not available from the incumbent telephone or cable company, the provision of municipal broadband or even just the discussion that a community is considering the provision of communications services, in some cases actually motivates incumbents to upgrade their networks and provide broadband service. In addition, some public power communities lease their excess fiber capacity to telecommunications companies, many of which are competitive providers of advanced communications services.

There is both anecdotal and empirical evidence that shows that the municipal provision of broadband services actually increases competition. As my testimony referenced, George Ford of Applied Economic Studies (AES) conducted an econometric analysis to determine whether public investment in communications crowds out private investment.[1] Using data available from Florida, the econometric analysis concluded that the presence of a municipal broadband system actually increases the number of communications providers in the market. The study found in localities that owned their own broadband

[1] 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/.

network, there were more competitive local exchange carriers in the marketplace than in localities that did not have municipal broadband networks. While the AES study only looks at Florida, the American Public Power Association (APPA) believes there would be similar findings in other states where municipalities provide broadband services based on data the association has received from its members.

Question: Since many of your colleagues have argued for open access to electric transmission grids, if we allow the munis to build these networks and enter the telecom marketplace, will you provide open access to your networks?

Answer: It is true that public power has long advocated for open access to the interstate, high-voltage transmission system in order to reach different wholesale suppliers and thus benefit from the assumed competition that it would provide. In examining this question it is important to note both the similarities and differences between this type of open access and open access to broadband infrastructure.

In electricity, the interstate transmission grid is the delivery mechanism for the wholesale market, while retail customers are served through the local distribution system. Essentially, different kinds of facilities are providing different types of service and the differences are relatively easy to distinguish from a physics and engineering perspective. Moreover, wholesale electricity markets (the transmission system) are governed by federal law and retail service (the distribution system) is governed exclusively at the state level.

APPA has not advocated open access for electricity at the retail level and has in fact opposed a federal mandate for retail open access. Decisions regarding the sale of electricity at retail have traditionally been made at the state level by state utility commissions or at the local level by locally owned and locally controlled public power systems.

Most public power systems that offer broadband service at the wholesale level, offer it on an open access basis, depending, of course, on available capacity. Retail services may vary more broadly depending on economic opportunities. However, in broadband there is not the clear delineation of wholesale versus retail and interstate commerce versus intrastate commerce that there is in electricity. In addition, there are significant physical differences between the transmission of electrons on one hand and transmission of information on the other. Electricity can only be transmitted over physical facilities. Because such facilities are very expensive and incredibly difficult to site and build, they cannot be duplicated. For all of these reasons, there can be no competition in the wholesale electric markets without access to these facilities. In contrast, there are many methods of transmitting information, including wireless transmission. Thus, the imperative that there be open access in order to enable competition does not exist in broadband to the same extent it exists with respect to wholesale electric competition. It may be that the question of open access, therefore, is best decided at the state and local level, at least for now, rather than at the federal level. This is an issue that I and other public power officials need to examine more closely before making a final determination.

Question: The state of Florida may soon come to a compromise solution between the telecom industry and local government, setting up a public process where a local government first clearly states the level of communications service it wants for its

community. It then seeks the service from private providers. If no private providers offer the service at the level requested, then the local government can offer the service itself. It is hoped that this compromise will help ensure that communities will receive the communications services they desire, either first from a private provider or second, from a public one. I understand that you don't have the details in front of you, but from the general principles I've outlined, do you think that this might provide some sort of framework for a national model in regard to the issues we are talking about today?

Answer: APPA is aware of, but not completely conversant, with the new Florida legislation (that was agreed to earlier this month). APPA does know that this legislation imposes certain obstacles that must be overcome before a public agency can provide broadband. If the goal is rapid expansion of our broadband infrastructure, this legislation appears to us to be inconsistent with that goal.

The association believes that if Congress decides to enact legislation on this issue, such a measure should not impose any barriers to public entry. Communities should be free to decide for themselves how best to serve their citizens. Public power systems that do decide to provide broadband service do so only after a thorough examination of the costs and benefits of municipal provision of service. They conduct thorough feasibility studies, seek public input throughout the process, and debate the merits of providing such services. They do not enter into such decisions lightly and in many cases have looked to the private sector to provide affordable broadband services that meet the needs of the community. In most cases, the private sector has not been willing to provide broadband services for a variety of reasons. In smaller communities, the return on investment is too small so private providers are not interested in providing the service. In others localities, the private providers are unwilling to upgrade existing services to meet the bandwidth and service needs of the community or are charging excessively high rates, or both. Regardless of the reasons why private providers choose not to provide service, one thing is clear, the needs of many communities throughout the country are not being met by incumbent providers.

As the Energy & Commerce Committee begins drafting its Internet protocol enabled services legislation, it should consider policies that would best promote the ubiquitous deployment of affordable broadband services. The committee should create a national framework that ensures the most rapid expansion of the nation's broadband infrastructure possible. To us, this means that no entity, public or private, should be prohibited by federal or state legislation from providing broadband, nor should barriers to entry be established that have the effect of precluding or delaying public entities, including obviously publicly owned electric utility systems, from providing broadband. Such a policy will expand our broadband infrastructure; it will also foster a truly competitive communications marketplace. The U.S. cannot afford to continue to slip further behind other nations in broadband deployment. Our businesses need access to truly high-speed broadband to compete in today's global marketplace. Our citizens also need access to affordable high-speed broadband to attain the skills they need to compete in the workforce as well as to enhance their quality of life. Few would deny that broadband is becoming increasingly important for commerce, health care, education, and improved quality of life. The committee should not adopt any policies that would leave un-served and underserved communities behind by precluding them from providing essential communications services to their businesses and citizens.

Again, I appreciate the opportunity to expand upon my testimony of **April 27, and am** available if you have any additional questions or comments.

Sincerely,

Lewis K. Billings
Mayor, Provo City

LKB/*KMG*

CHARLES M. DAVIDSON
COMMISSIONER

STATE OF FLORIDA

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Public Service Commission

May 27, 2005

The Honorable Cliff Stearns
U.S. House Subcommittee on Telecommunications and the Internet
2370 Rayburn House Office Building
Washington, DC 20515-0906

Dear Congressman Stearns:

Thank you and your fellow members on the Subcommittee on Telecommunications and the Internet for the opportunity to appear and share my views on "How Internet Protocol-Enabled Services are Changing the Face of Communications." It was an honor.

The following responds to your questions (noted in bold) directed to me in follow-up to the April 27th Subcommittee hearing.

* * * * *

1. **In your testimony you note that the existing definitions in the Act don't really fit IP-enabled services and that you would be against "seeking to preserve a regulatory model that is increasingly obsolete and that was not intended to encompass such technologies." Do you think that Congress should consider a new and separate definition covering these IP services?**

Yes. Congress should consider a new and separate definition covering IP-enabled services, perhaps in the context of a new classification system for all communications services under federal jurisdiction (or that should be under federal jurisdiction – *i.e.*, interstate services). The current classification of a service as "telecommunications" or "information" determines the rights and obligations to which a provider will be subject. IP-enabled services do not fit neatly into either classification. VoIP, for example, represents the convergence of voice and data and, as such, represents a "mixed use" service.

Although classifying IP-enabled services as "information services" under the current regime is far less troublesome than classifying such services as "telecommunications services," it

is by no means a good or permanent fit. Attempting to apply existing (and outdated) classifications to new technologies creates substantial regulatory uncertainty. Such uncertainty, in turn, serves only to delay the development and deployment of new technologies or to make such technologies more expensive for customers. A better solution would be the articulation of a new regulatory paradigm that avoids the "either-or" dilemma of attempting to pigeon-hole new technologies into the telecommunications service or information service boxes and that treats similarly-situated technologies or platforms similarly.

2. **Specifically, Congressman Boucher and I have introduced legislation that would classify these IP-enabled services as Advanced Internet Communications Services and create an entirely separate set of rules to deal with these services, of course leaving some issues for the states. Do you agree with our proposal and do you think it would create more regulatory certainty and flexibility for industry and consumers?**

Yes, I agree with your proposal in HR 214 to separately classify IP-enabled services and create a separate set of rules for such services. If enacted, HR 214 would provide greater regulatory certainty for providers that fall under the new classification of "Advanced Internet Communications Services." The proposal would render moot the current confusion as to whether IP services should be classified as either "telecommunications" or "information" services. Further, the proposed classification of IP-enabled services as interstate in nature would statutorily resolve open jurisdictional questions.

In providing for a new regime, HR 214 would ensure that service providers face an appropriately uniform national policy regime. The proposal would encourage providers to offer new services across the country, as opposed to focusing only on states like Florida that offer a rational regulatory climate. As providers benefit from increased regulatory certainty, increased flexibility, and the resulting lower costs of doing business (all other things equal), so shall consumers benefit from the anticipated wider deployment of competitive IP-enabled services.

Importantly, HR 214 does not pick winners and losers. The bill would establish regulatory parity amongst providers and platforms. By not discriminating amongst platforms, HR 214 would ensure that regulation is not inadvertently encouraging investment in some similarly-situated technologies while discouraging investment in others.

As you know, Florida was the first state in the nation to allow VoIP to develop free of unnecessary regulation. Broadband generally was freed from local government control. Recent legislation by the Florida Legislature (SB 1322), which has been transmitted to the Governor for signature, provides that broadband generally and VoIP specifically "shall be free of state regulation...regardless of the provider, platform or protocol." While the Legislature has expressly provided that such services remain subject to the state's generally applicable business regulation and consumer protection laws, it has also made clear that providers of advanced communications technologies are not going to be subject to disparate regulatory treatment – either vis-à-vis other sectors of the economy or vis-à-vis competitors. As a result of its

regulatory approach, one that respects both the competitive nature of the market and the interstate nature of the technologies at issue, Florida is witnessing robust intermodal competition, investments in new technologies and job creation.

3. What do you think might happen if we don't come up with a new classification and try to fit these IP-services into existing regulations?

If policymakers continue to try to fit IP-services into existing regulations, the effects will likely be only negative. First, continued uncertainty as to the regulatory treatment of IP-enabled technologies will serve primarily to delay the development and deployment of these technologies for consumers. Some potential new entrants may choose not to enter the market until such time as the rules of the game are clear. For those that do enter the market, continued regulatory uncertainty generates costs (*e.g.*, compliance costs, transaction costs, litigation costs) that will undoubtedly be paid by the consumer. Second, jurisdictional squabbles between state and federal regulators certainly will likely continue and will likely distract them from focusing on areas where some form of regulation is justified – *i.e.*, 911, universal service, access for persons with disabilities, etc.

4. The state of Florida may soon come to a compromise solution between the telecom industry and local government, setting up a public process where a local government first clearly states the level of communications service it wants for its community. It then seeks the service from private providers. If no private providers offer the service at the level requested, then the local government can offer the service itself. It is hoped that this compromise will help ensure that communities will receive the communications services they desire, either first from a private provider or second, from a public one. I understand that you don't have the details in front of you, but from the general principles I've outlined, do you think that this might provide some sort of framework for a national model in regard to the issues we are talking about today?

Yes, the principles you have outlined would provide for a national policy framework that addresses the various interests and policies at play. My response to this question is a function of my belief in two core principles. First, in a free-market economy, government should not compete with private enterprise. Second, government intervention is proper to address a market failure – and the scope of such intervention should be a function of the scope of the market failure.

The principles you have outlined could provide a framework for such a national model. Such an approach is preferable to the status quo, where some local governments are risking tax dollars by funding ventures that directly compete with private enterprise. A national model along the lines outlined in your question would offer the following benefits: it would provide a mechanism for local governments to serve constituents where the market cannot or will not; it would minimize the risk of loss of scarce public funds; and it would help reduce litigation between local government and private infrastructure/service providers.

As a point of information, it is my understanding that the language ultimately passed by the Florida Legislature (SB 1322) differs somewhat from the version you described on April 27th. As passed, SB 1322 provides that 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.

There are additional details, and I have attached a summary prepared by Mr. Barry Moline with the Florida Municipal Electric Association for your reference.

The key difference in the version passed and the version you described appears to be that in the version passed, there is no prohibition on a local government providing communications services even if private entities offer the service at the level sought by local governments. Information about the current or proposed offerings of private providers, however, must be considered by the local government and aired at the required public meetings prior to the local government's final decision.

While different than the version you described, I believe that the provisions passed by the Florida Legislature are preferable to the status quo. While I remain opposed to government competing with private enterprise, the requirement that local government plans to provide communications services be aired "in the sunshine" through a couple of noticed, public meetings is a positive step.

On May 24th, this legislation (SB 1322), which contained provisions in addition to those relating to local government provision of communications service, has been forwarded to the Governor for action. The Governor's decision is expected by June 8th.

* * * * *

Thank you for the opportunity to supplement my remarks in this manner. Please do not hesitate to contact me for any additional information.

Sincerely,

Charles M. Davidson

Attachment

SB 1322 Local Government Broadband: Requirements for Governmental Entities NOT Offering Communications Services as of May 6, 2005

I. "Good Government" Provisions

- ***Hearing Requirements** [Section 8(2)(a)-(c)]*

  The following timeline outlines the notice and hearing requirements:

  - Prepare a notice. Before starting the hearing process, the entity must prepare a fairly detailed notice. The notice must include the geographic areas proposed to be served and the "services" that the entity "believes are not currently being adequately provided." The more specific the request, the better the chance that the local government will receive the service its community wants. With more specific notice, all parties will have better information to determine their ability to offer the requested service. Furthermore, this will increase the chance that the community will receive the communications service it wants from either a private or public provider.

  - 40 days prior to first hearing, the entity must provide a copy of notice to the Department of Revenue and Public Service Commission. This notice must include the date and time of the hearing and state that any dealer that wishes to appear and be heard at the hearings may do so. The Department will issue this notice by mail and electronically to all communications dealers registered in the state within 10 days.

  - At both public hearings, the entity must consider at least the following factors:

    1. Whether the proposed service or any "similar service" is currently offered in the community and whether it is "generally available throughout the community." If the particular service or similar service is not generally offered, whether any service provider is "willing or able to offer" an "assurance" that it will provide the service.
    2. The capital investment and estimated costs to provide the service, using a "full cost-accounting method" and "realistic revenue and expenses."
    3. The proposed method of financing.
    4. The "private and public costs and benefits" of providing the services by the government versus the private sector.

  - At one of these hearings, the entity must "make available to the public a written business plan for the proposed communications service venture." This business plan must include the projected number of subscribers, the geographic area, the types of services to be provided, and estimated revenues and costs for the first four years. The plan must "ensure that revenues exceed operating expenses and payment of principal and interest on debt within 4 years" [Section 8(2)(c)4)].

  - After both public hearings are held, the entity must "make specific findings" about the factors and business plan discussed above before it may authorize the provision of services.

  - The authorization for services must be by a majority recorded vote by resolution, ordinance, or other "formal means of adoption."

- ***Annual Review** [Section 8(2)(k)]*. After a service is authorized, the entity must conduct an annual public hearing of the "business plan goals and objectives" of the services.

- ***Four-Year Review** [Section 8(2)(l)]*. Four years after authorization of service, the entity must conduct a review of its communications services to determine if the revenues of those services cover operating expenses and debt payments. If revenues do not cover expenses and debt payments, the entity must hold an additional public hearing within sixty days. At that hearing, the entity must decide whether to: 1) shut down the service, 2) sell it to a private provider, 3) partner with a private company, or 4) continue to provide that service.

II. Level Playing Field Requirements

- ***No Cross-Subsidization or Price Below Cost [Section 8(2)(f)].*** Entities are prohibited from cross-subsidizing the sale of communications services from other revenues. To enforce this provision, SB 1322 requires that the communications services be priced "above cost," defined as at or above total service long-run incremental cost (TSLRIC).

- ***No Bonds Permitted For Service Outside of County [Section 8(2)(e)1.a-b].*** The entity cannot issue bonds to provide service outside of its county or area in which it provides electric service pursuant to an approved territorial rights agreement [Section 8(2)(e)1.a-b]. This prohibition on debt applies even if the other governmental entity outside the county consents to the service.

- ***No Bonds Permitted for Service in Territory of Another Governmental Entity Without that Entity's Consent [Section 8(2)(e)1.c)].*** The governmental entity may issues bonds to provide service if the proposed service is 1) within its corporate limits, or 2) in an area in which the governmental entity provides water, wastewater, electric, or natural gas service, or 3) within an urban service area designated in a comprehensive plan, whichever is larger. The governmental entity may provide service to another governmental entity within the county in which the providing entity is located as long as the providing entity obtains the consent – by formal action – of the receiving governmental entity.

- ***Referendn Required for Long-Term Bonds [Section 8(2)(e)2].*** Revenue bonds for a communications service that mature beyond 15 years must be approved by a voter referendum.

- ***Separate Books and Records [Section 8(2)(g)].*** The entity must keep separate books and records for its communications services that comply with Section 218.32 of the Florida Statutes and generally with OMB Circular A-87.

- ***Separate Enterprise Fund [Section 8(2)(h)].*** The entity must establish a separate enterprise fund for communications services.

- ***Separate Operating and Capital Budgets [Section 8(2)(i)].*** The entity must establish separate operating and capital budgets for its communications services.

- ***Limitation on Eminent Domain [Section 8(2)(j)].*** The entity cannot use the power of eminent domain "solely or primarily for the purpose" of providing a communications service.

- ***Application of General Regulatory Provisions [Section 8(3)(a)-(b)].*** The entity must comply with federal and state laws that regulate cable, telecommunications and advanced service providers.

- ***No Coercion in Sale of Service [Section 8(3)(c)].*** The entity cannot utilize its "power or authority in any area, including zoning or land use regulation" to require any person to use or subscribe to any of the entity's communications services.

- ***Nondiscriminatory Rights-of-Way and Pole Attachments [Section 8(3)(d)].*** The entity cannot discriminate against private providers in the application of its rules, ordinances, or policies that relate to rights-of-way and pole attachments.

- ***State Antitrust Laws Apply [Section 8(5)].*** The local government exemption from state antitrust laws (Florida Statutes ch. 542.235) no longer applies to the provision of communications services. Antitrust law includes substantial civil and criminal liability, and public employees are now subject to personal liability for violations.

CHARLES M. DAVIDSON
COMMISSIONER

STATE OF FLORIDA

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Public Service Commission

May 27, 2005

The Honorable Marsha Blackburn
U.S. House Subcommittee on Telecommunications and the Internet
509 Cannon House Office Building
Washington, DC 20515

Dear Congresswoman Blackburn:

Thank you and your fellow members on the Subcommittee on Telecommunications and the Internet for the opportunity to appear and share my views on "How Internet Protocol-Enabled Services are Changing the Face of Communications." It was an honor.

The following responds to your questions (noted in bold) directed to me in follow-up to the April 27th Subcommittee hearing.

* * * * *

1. **I'm trying to get an appreciation for the level of regulation placed on second entrants into telecommunications markets. When there is an incumbent telephone company providing service, does a second, or for that matter, third or fourth entrant into that market (a CLEC), have the same obligations as the incumbent to be the provider of last resort?**

No, a CLEC does not have the same obligations as the incumbent (ILEC) to be the carrier of last resort in Florida. A CLEC may petition the PSC, however, to become the universal service provider and carrier of last resort in its chosen service areas. ILECs are required to continue to furnish basic service to any person in their territory requesting such service until at least January 1, 2009.

A carrier of last resort currently has certain duties with respect to the provision of Lifeline service. Each of the ILECs contributes $3.50 to the total amount credited to each eligible residential consumer enrolled in its Lifeline Assistance Plan in its service territory. If signed into law, the 2005 Legislature's proposed statutory revisions (which have been sent to

Governor Bush for his consideration) would also require any CLEC that has been designated an eligible telecommunications carrier (ETC) to provide a Lifeline Assistance Plan to qualified residential customers.

2. Does the CLEC have to deploy its services throughout the state or city it is serving, or can it choose which markets to serve?

In Florida, a CLEC can choose which markets to serve. Florida has 3 large ILECs, BellSouth, Sprint, and Verizon, and 7 smaller ILECs. A CLEC may compete in any one of these service territories or all 10.

3. Does the CLEC have the same obligations to file tariffs or provide cost justification for its services?

No. Unlike the ILECs, CLECs are not required to file tariffs for Commission acknowledgment. Each CLEC is required to file a price list for basic local service only if it offers that service. No cost justification is required of CLECs.

4. Are there other regulations that are less burdensome on the second entrant into the market?

Under current Florida law, Florida CLECs ("new entrants") are statutorily "subject to a lesser level of regulatory oversight" than incumbents (ILECs), at least for an undefined "transitional period." If signed into law, the 2005 Legislature's proposed statutory revisions (which have been sent to Governor Bush for his consideration) would call for the transitional period for reduced oversight to apply to "new and emerging technologies."

Additionally, CLECs currently do not have the same service quality requirements as ILECs (although existing law contains provisions for ILECs to petition to reduce their service quality requirements upon certain conditions being met). Also, CLECs are not required to seek PSC approval of a certificate transfer that may occur as a result of an acquisition of one carrier by another.

* * * * *

Thank you for the opportunity to supplement my remarks in this manner. Please do not hesitate to contact me for additional information or for assistance with any other matter.

Sincerely,

Charles M. Davidson

CITY OF ARVADA

MAYOR AND CITY COUNCIL
FACSIMILE: 720-898-7515 ▲ TDD: 720-898-7869
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May 27, 2005

VIA FACSIMILE (202-225-1919)
VIA EMAIL (anh.nguyen@mail.house.gov)

ATTN: Anh Nguyen

Honorable Cliff Stearns
United States House of Representatives
Subcommittee on Telecommunications and the Internet
2125 Rayburn House Office Building
Washington, D.C. 20515-6115

Re: "How Internet Protocol-Enabled Services are Changing the Face of Communications: A View from Government Officials" (April 27, 2005) Subcommittee on Telecommunications and the Internet / Follow Up Questions

Dear Representative Stearns:

As a follow up to the April 27, 2005 Subcommittee Hearing, I am pleased to respond to the question that you posed to me in the May 13, 2005 letter I received from Chairman Upton:

QUESTION:

The Honorable Kenneth Fellman

From the Honorable Cliff Stearns

The state of Florida may soon come to a compromise solution between the telecom industry and local government, setting up a public process where a local government first clearly states the level of communications service it wants for its community. It then seeks the service from private providers. If no private providers offer the service at the level requested, then the local government can offer the service itself. It is hoped that this compromise will help ensure that communities will receive the communications services they desire, either first from a private provider or second, from a public one. I understand that you don't have the details in front of you, but from the general principles I've outlined, do you think

May 27, 2005
Page 2

that this might provide some sort of framework for a national model in regard to the issues we are talking about today?

RESPONSE:

You are correct that I am not familiar with the details of the legislative discussions in the State of Florida. My response relates only to the general principles that are contained within your question.

Any federal or state government restriction on the ability of local government to assist in the deployment of communications services to its citizens is problematic. Such restrictions intrude on the principles of federalism upon which this nation was founded, and in my opinion, are simply bad public policy. There is simply no evidence of a national problem with local government involvement in broadband deployment. As I previously indicated in my testimony, local government strongly supports widespread deployment of broadband services and believes municipalities have an important role to play in this regard. I encourage Congress to take no action that would make it harder for localities to serve their citizens in this manner. Moreover, I draw your attention to the testimony of Mayor Billings from Provo, Utah. His testimony demonstrated the careful decision-making involved when a municipality undertakes offering broadband services.

Without being familiar with the Florida proposal, the principles described in your question would appear to preempt a local government from taking any number of steps to enhance competition. For instance, the broad reference to "level of service" could preclude a community from entering a public/private partnership, from building new infrastructure to sell or lease to multiple private providers, or from providing services directly, all as a means of ensuring the delivery of competitive services within the community. Different communities may seek different solutions to the complex issue of broadband demand and deployment.

Today, my City is provided gas and electric service through a private sector entity. If we are unhappy with the service, we can choose to become a municipal provider and serve our citizens directly. Like many communities, we have chosen not to do so, because at this point in time it does not appear to be a wise financial decision. Other communities at various points in time have decided to provide such service as municipal utilities, and have done so quite successfully. Local leaders who are able to evaluate the economic and social needs of their citizens should retain the power to best serve their communities.

I appreciate the opportunity to respond to your question, and would be happy to discuss these issues further with you, your staff, or any other members of the Subcommittee at your convenience.

Very truly yours,

Ken Fellman
Mayor

N A R U C

National Association of Regulatory Utility Commissioners

Diane Munns, *President*
Iowa Utilities Board

James Y. Kerr, II, *First Vice President*
North Carolina Utilities Commission

Constance B. White, *Treasurer*
Utah Public Service Commission

Charles D. Gray, *Executive Director*
Washington, DC Office

May 17, 2005

The Honorable Fred Upton, Chairman
Subcommittee on Telecommunications and the Internet
United States House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

Chairman Upton:

Thank you again for the opportunity to testify before the Telecommunications and Internet Subcommittee on April 27 about the promise of IP-enabled services. It was a privilege and an honor to participate in your deliberations. I am writing to provide written responses for the record to several questions asked during the hearing.

First, Congresswoman Marsha Blackburn asked whether any of the witnesses thought the retail price of broadband service should be regulated at the State or federal level. NARUC does not believe retail rate regulation of broadband service is necessary. We are concerned about related issues, such as whether customers are forced to purchase traditional telephone service as a condition of obtaining broadband service, as some carriers have required. We also believe all customers should be able to obtain reliable, affordable telephone service, whether it utilizes copper or fiber, and that where a carrier still has significant market power or a market is otherwise unprofitable to serve, state action is appropriate to ensure such service.

Second, Congressman Bart Stupak asked whether Voice-Over-Internet-Protocol (VOIP) providers should contribute to universal service. We believe all providers that rely on the ubiquitous Public-Switched Telephone Network (PSTN) should make an equitable contribution to State and Federal universal service funds that allow that network to reach so many people. While not all VOIP services exchange traffic with the PSTN, those that do should support universal service. This viewpoint was echoed by many VOIP providers that testified at the Subcommittee's March 16 hearing on IP-enabled services.

Third, Congressman Stupak asked about particular consumer concerns that could be addressed effectively at the State level. As I mentioned during testimony, consumer hotlines operated by State commissions provide individualized assistance in response to hundreds of thousands of consumer complaints every year and are on the proverbial front lines when it comes to hearing about new concerns or abuses. As public servants we need the flexibility to provide a remedy to these concerns when they are presented to us –

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not refer the consumer to a lengthy federal rulemaking process. This was true when the Iowa Utilities Board handled a "modem hijacking" case last month and it was true when States addressed "slamming" and "cramming" complaints long before they were addressed at the federal level. State commissions also address billing disputes, privacy concerns, outage reports, truth-in-billing, truth-in-advertising, do-not-call enforcement and many other concerns.

NARUC members look forward to continued constructive participation in the dialogue about how to ensure that our nation's communications laws are facilitating effective consumer protection, public safety, competition and universal service in a dynamic and innovative market. Please do not hesitate to contact me if you require any additional information.

Best regards,

Diane Munns

Diane Munns
President, NARUC
Commissioner, Iowa Utilities Board

N A R U C
National Association of Regulatory Utility Commissioners

Diane Munns, *President*
Iowa Utilities Board
James Y. Kerr, II, *First Vice President*
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May 27, 2005

The Honorable Fred Upton, Chairman
Subcommittee on Telecommunications and the Internet
United States House of Representatives
2125 Rayburn House Office Building
Washington, DC 20005

Dear Chairman Upton:

NARUC hereby submits this response for the Subcommittee's official record of the April 27, 2005 hearing on "How IP-Enabled Services are Changing the Face of Communications." In a written follow-up question, Congressman Stearns asked if a bill currently in the Florida Legislature could serve as a model framework for a national approach to the offering of communications services by local governments. The specific legislation would require municipalities to meet several requirements before offering such services to the public:

- Determine whether private sector carriers are prepared to offer the services;
- Hold several public hearings;
- Devise a business plan showing a four-year path to profitability; and
- Refrain from cross-subsidizing communications services with revenues from other utilities or taxes.

Proponents of municipal offerings have highlighted the benefits of additional broadband deployment to communities, the importance of local sovereignty and the desire of many rural communities that have been passed over by private providers to meet their own needs. Opponents have raised the possibilities of unfair competition and uneconomic subsidies. Florida is not the only state that has been struggling to accommodate the various interest raised by this issue. For example, Pennsylvania, Texas, Indiana, Michigan, Wisconsin, Iowa, Colorado, Illinois, Nebraska, Ohio, Tennessee and Louisiana have all debated the issue.

While NARUC has not taken an official position on municipal broadband offerings, we have devoted considerable attention to the related issue of broadband over power lines (BPL) services, many of which could be offered over the facilities of

municipal electric companies. That report is attached to this letter and available online at: http://www.naruc.org/associations/1773/files/bplreport_0205.pdf

At this point, we believe it makes the most sense to watch the Florida approach to and see whether broadband deployment in Florida is reaching its fullest potential, whether Floridians are able to receive new services like wireless broadband and BPL, and whether the concerns expressed by either side are borne out in practice. A particular advantage of federalism is that, where uniformity is not required, Florida's experience can be matched against that of Pennsylvania, Indiana, Michigan and other states and either replicated or improved upon.

Thank you for the opportunity to respond and please do not hesitate to contact us on this or other topics.

Sincerely,

Diane Munns

Diane Munns
President of NARUC
Commissioner, Iowa Utilities Board

REPORT OF THE BROADBAND OVER POWER LINES TASK FORCE

The National Association of Regulatory Utility Commissioners

February 2005

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EXECUTIVE SUMMARY

The Broadband over Power Lines (BPL) Task Force of the National Association of Regulatory Utility Commissioners was formed in December 2003 to explore the potential for deployment of Broadband over Power Lines and, in particular, the State commission role in advancing use of this technology.

BPL is a synergistic technology used to deliver high-speed data to end users over existing electric power networks and lines. It was the subject of an unprecedented joint statement by Chairmen of the Federal Communications Commission and the Federal Energy Regulatory Commission because the technology holds promise for extending service to underserved areas, facilitating broadband competition, and enhancing both security and reliability through a "smart grid." Throughout 2004, the Task Force met with industry experts and representatives of BPL broadband providers, electric utilities, and trade associations. This report is the first by the Task Force, which is comprised of commissioners involved in both the electricity and telecommunications sectors.

Early in its efforts, the Task Force saw the need to examine BPL issues within three broad areas: Technology, Security, and Regulatory. The Task Force spent considerable time learning about the basics of the technology. A basic understanding of the limits and potential of the technology is necessary as a backdrop for examination of the security and regulatory issues. On security, our review made clear that there is much to appreciate about BPL from both a homeland security standpoint, as well as the reliability potential inherent in the many "smart grid" opportunities presented by BPL for electric utilities. Finally, from a regulatory standpoint, we recognize that BPL deployment will likely encounter regulatory issues that are common to network industries, e.g., pole attachment rates, open access, cost allocation, affiliate transactions, and rights-of-way. Since BPL is an integrated component of the electric distribution network, the Task Force believes that it will be primarily up to the individual States to tailor appropriate regulatory roadmaps and responses.

The Task Force recommends that State commissioners take the time now to learn more about BPL technology. Policy makers will want to want monitor BPL to see whether and how it actually delivers on its many promises. States with BPL trials or small commercial deployments are encouraged to remain vigilant in their oversight of the offering and to share their observations with the Task Force.

Prescribing an anticipatory form of regulation could presume that we can know how technologies and markets will evolve. Regulators also want to avoid favoring any one technology over others and thereby distort the market or impede innovation. Absent any actual or imminent market failure or other threat to the public interest, however, oversight can be minimally intrusive. For BPL, the Task Force suggests a light-handed approach to regulation with a longer term focus on resolution of the regulatory issues cited above.

Over the coming year, the Task Force will remain engaged with industry stakeholders and customers, as we look to optimize the benefits of the technology for the public. The Task Force plans to continue to explore regulatory policy issues, as well as to spend more time in 2005 examining rural pilots. Specifically, we expect to:

(1) Continue to monitor the ongoing pilot programs and commercial deployments;

(2) Focus on emerging regulatory issues with an eye towards formulating a best practices guide for State regulators and providing updated surveys on State and industry activity;
(3) Scrutinize rural BPL deployments with a particular emphasis on any emerging technologies and circumstances that can facilitate rollout.

If you have surveys, white papers, studies, or technology overviews you believe may be of use to the Task Force in 2005, please send an e-mail to NARUC's General Counsel, Brad Ramsay, at jramsay@naruc.org.

I. INTRODUCTION

On December 16, 2003, the National Association of Regulatory Utility Commissioners (NARUC) announced the creation of a Task Force charged with exploring the potential for deployment of Broadband over Power Lines (BPL) and, in particular, the potential role of State public utility commissions in advancing the use of this technology. Then NARUC President, the Hon. Stan Wise of the Georgia Public Service Commission, stated that:

> (B)roadband over Power Lines may prove to be the third broadband pipe into residential consumers' homes, providing significant competition for cable modem and DSL service. I am pleased to announce that six extremely capable State regulators have agreed to join this effort. I am charging them with the task of seeing what States can do to complement the investigations of the FCC and the FERC in this area.[1]

Commissioner Wise appointed the following State regulators to the Task Force:

- Hon. Laura Chappelle, Michigan Public Service Commission, Task Force Chair and Vice Chair of the NARUC Committee on Electricity.
- Hon. Thomas J. Dunleavy, New York Public Service Commission, Co-Vice Chair of the NARUC Committee on Telecommunications.
- Hon. Julie Caruthers Parsley, Texas Public Utility Commission, Member of the NARUC Committee on Electricity.
- Hon. Tony Clark, President, North Dakota Public Service Commission, Co-Vice Chair of the NARUC Committee on Telecommunications.
- Hon. Denise A. Bode, Chairman, Oklahoma Corporation Commission, Member of the NARUC Committee on Telecommunications.
- Hon. Connie O. Hughes, New Jersey Board of Public Utilities, Member of the NARUC Committee on Telecommunications and Chair of the NARUC Ad Hoc Committee on Critical Infrastructure.

Additionally, the Hon. Robert B. Nelson of the Michigan Public Service Commission, who chairs the NARUC Committee on Telecommunications, participated as a source of valuable guidance in the meetings and deliberations of the Task Force.

In January 2005, NARUC President, the Hon. Marilyn Showalter, Chairwoman of the Washington Utilities and Transportation Commission, reconfirmed the Task Force membership.

Throughout its discussions, the Task Force benefited from the active participation and insights of staff from the Federal Energy Regulatory Commission (FERC), ably represented by David Tobenkin, and the Federal Communications Commission (FCC), through Rodger Woock. At the NARUC Summer Committee meetings on July 23, 2004, Task Force Chair, the Hon. Laura Chappelle, moderated a BPL panel discussion with participation by the Hon. Nora Mead Brownell of the FERC and the Hon. Kathleen Q. Abernathy of the FCC.

NARUC's Charles D. Gray, Executive Director; James Bradford Ramsay, General Counsel; and Brian Adkins, Legislative Director for Telecommunications, all provided valuable contributions. The Task Force wishes to thank the FERC, the FCC, and NARUC for the contributions of their

[1] Source: "NARUC Taskforce on Broadband over Power Lines" (January 29, 2005) URL: http://www.naruc.org/displaycommon.cfm?an=1&subarticlenbr=334.

respective representatives. Staff participants from a number of State commissions, especially Don Jones (Texas), Steve Wilt (Oklahoma), Illona Jeffcoat-Sacco (North Dakota), Jeffrey Pillon (Michigan), and Ken Roth (Michigan) also provided substantial input. Additional technical review and editing of the report was provided by Dr. Janice Beecher, Director of the Institute of Public Utilities at Michigan State University. The Task Force could not have had such a busy, productive, and insightful year, were it not for the hard work and insights of all these individuals as well as the efforts of many that we were unable to separately list here.

II. OVERVIEW

The year 2004 was important for BPL, the technology used to deliver high-speed data over existing electric power networks. BPL allows electric customers to obtain broadband service and, with it, access to the limitless content of the Internet. In rural areas, BPL could provide access to broadband service, either as an initial sole service or a competitive option, in otherwise expensive-to-serve markets. In more densely populated markets that already have broadband options via digital subscriber line (DSL) or cable -modem, BPL could provide that sometime elusive "third pipe" or "third wire" facilities-based option needed to facilitate vigorous competition.

Equally important are the potential "smart grid" capabilities of BPL. As discussed in Part III, BPL might allow electric utilities to significantly improve their ability to monitor and control lines and facilities. The integration of BPL technology with electrical operations may position a utility to achieve more network automation. While operational enhancements have always been of interest to the electric industry, the August 14, 2003 Northeast power blackout and its aftermath broadened interest in the preventative measures that might be achievable though BPL.

In the wake of the blackout, and the inception of several BPL pilot programs, the technology became the subject of numerous articles, industry white papers, and federal policy initiatives. This uptick in interest emerged just as the Task Force began investigating the technology.

On October 14, 2004, the FCC and the FERC joined to focus national attention on BPL. The FCC voted to approve standards relating to radio frequency interference to reduce concerns that interference problems would impede BPL's development.[2] The same day, the FERC and FCC chairmen issued a joint statement that commits their respective agencies to foster policies to encourage rapid deployment of BPL. According to Chairmen Powell and Wood, whatever the underlying technology, broadband is essential to the national well-being. They agreed that ". . . [p]olicy-makers at all levels should coordinate their efforts to promote a minimally intrusive policy framework for such technologies." The statement identifies BPL as one emerging technology that could increase competitive broadband choices. It acknowledges that BPL may also improve electric utilities' communications and control capabilities and thereby enhance their reliability and efficiency. The joint statement concludes with the following areas of agreement:

- Utilities should "pursue new . . . technologies, such as BPL, that will foster greater customer options in broadband, provide more efficient management of the power supply system, and ensure increased operational reliability."
- Utilities should "appropriately allocate revenues and costs related to new technologies, such as Access BPL, between regulated and unregulated functions."

[2] *Carrier Current Systems, including Broadband over Power Line Systems*, ET Docket No. 03-104; *Amendment of Part 15 regarding new requirements and measurement guidelines for Access Broadband over Power Line Systems*, ET Docket No. 04-37, noticed at 70 Fed. Reg. 1360. The FCC issued the text of the rules October 28, 2004.

- Development of new competitive broadband technologies should be encouraged.
- The FCC and FERC should "monitor experience with Access BPL to ensure that existing regulations do not stifle [its] development."

Over the last year, the Task Force has held numerous phone conferences with industry experts, as well as representatives of BPL broadband providers, electric utilities, and trade associations. On October 24, 2004, the Task Force convened for a day-long session in Arlington, Virginia, to interact with several leading commentators on BPL-related developments. Several members of the Task Force also benefited from a hands-on demonstration of BPL home applications provided by Current Communications Group, LLC (Current) at a residence it maintains for that purpose in Potomac, Maryland.

During these meetings and calls, the Task Force heard from many diverse sectors of the BPL community, such as enthusiast trade groups (the United PowerLine Council, the Power Line Communications Association), individual BPL providers (Current, Amperion, Inc.), investor-owned electric companies (Consumers Energy Company, Cinergy Corp), a municipal utility (the City of Manassas, Virginia), a rural electric cooperative (Central Virginia Electric Cooperative), industry trade groups (National Energy Marketers Association, Edison Electric Institute), a cable company (Cox Communications, Inc.), and preeminent consultants and industry observers.[3] The Task Force also heard some cautionary input regarding radio frequency interference, most notably from the American Radio Relay League (ARRL). Although of general interest, the Task Force deferred to the FCC on this issue, due to a pending rulemaking by the commission, which resulted in the promulgation of final rules in October 2004.[4]

Early in its efforts, the Task Force saw the need to examine BPL issues within three broad areas: Technology, Security, and Regulatory. The Task Force divided itself into three working subgroups to concentrate on these major areas of interest as follows:

Technology: Commissioner Bode and Commissioner Parsley
Security: Commissioner Chappelle and Commissioner Hughes
Regulatory: Commissioner Clark and Commissioner Dunleavy

As a foundation for the Task Force's examination of security and regulatory issues, the members spent considerable time learning about the technology and different modes for deployment. Site visits and related demonstrations and discussions provide policy makers an invaluable backdrop on the possibilities and potential issues raised by this synergistic technology. The Task Force strongly encourages commissioners and other policy makers to view BPL pilots where available.

The investigation of security related issues was particularly interesting. As discussed in more detail below, BPL raises many intriguing possibilities from both a homeland security standpoint, as well as the many "smart grid" options for electric utilities.

From a regulatory standpoint, BPL deployment will eventually require resolution of several issues common to network industries. Pole attachments, open access, cost allocation, affiliate transactions, and rights-of-way and other issues will require resolution. How these issues are resolved will impact how BPL is ultimately provided. Since BPL is an integrated component of the electric distribution network, the Task Force believes that it will be primarily up to individual states to tailor appropriate regulatory roadmaps and responses.

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[3] Appendix A provides a summary of the Task Force's Arlington meeting and numerous teleconference calls.
[4] *See supra* note 2. A more detailed discussion appears in Part III of this paper.

The Task Force's examination to date suggests BPL potentially offers multifaceted benefits ranging from enhancing the security and reliability of electric service to enhancing competition in the broadband space. Task Force members agree generally with the FERC/FCC Joint statement that the development of new competitive broadband technologies should be encouraged and that a minimally intrusive approach to resolution of the issues surrounding BPL service is possible. The long term resolution of the various outstanding issues should not favor any technology over another. If BPL can play a role in expanding efficient broadband access, the public interest will be served.

III. TECHNOLOGY

Currently, broadband Internet access is offered to residential and small-business customers through DSL, cable-modem, wireless, optical fiber, and satellite technologies. Broadband over Power Lines, or BPL, is another mode of broadband access. BPL deployment remains in the developmental stage in most locales where it is available.

How BPL Works

BPL, also known as power-line communication, utilizes electric power distribution wires for the high-speed transmission of data by transmitting high-frequency data signals through the same power distribution network used for carrying electric power to household users. In a common form of BPL, the broadband connection is provided over the electrical wires that enter a house; a customer can obtain Internet access by plugging a BPL modem into any residential electric outlet served by the BPL system. In another form of BPL, Internet access is provided using a wireless device (such as a WiFi access point) connected to a BPL distribution system outside of the home that communicates with the customer's computer or other equipment inside the home.

The low-power, unlicensed equipment that is being employed in modern BPL systems couples radio frequency signals onto the existing electric power distribution lines for distribution throughout a neighborhood. A BPL system requires a means of getting the data signal from an Internet service provider (ISP) to a location where the broadband signal is injected into a power line. The data signal can be provided to the injection point over conventional copper, fiber, or wireless facilities. The principal benefits of BPL are that no new wires need to be installed in order to distribute the broadband connection to each house in a neighborhood, and BPL can be accessed anywhere in each house without additional inside wiring.

It is important to note that BPL technology, in its current form, is not suitable for carrying broadband signals over long distances. The broadband communication channel must be brought into a neighborhood by other means, and then BPL can be used as the distribution mechanism to reach individual homes or businesses.

Strategic advantages attributed to BPL include relatively easy installation, low cost of entry, and quick deployment. BPL allows power lines to carry signals for moderate distances without regeneration, requires no changes to be made in business or household wiring for broadband access, provides broadband access from every electric outlet in every room, poses a relatively low entry barrier for electric utilities wanting to offer broadband service, and utilizes a pre-existing infrastructure—the electric power grid.
BPL equipment manufacturers and service providers anticipate a wide range of applications that may be offered to subscribers. High quality, multi-channel video, audio, voice-over-internet protocol

(VoIP), and on-line gaming applications are expected to rapidly increase the demand for additional bandwidth. To support the typical subscriber at 1 megabit per second (Mbps), BPL systems are expected in the near future to operate at speeds of 100 Mbps or more on the medium voltage (MV) power lines. Most of the presentations made to the Task Force indicate that the BPL industry is gearing up for growth. The level of activity and interest, as evidenced by NARUC's state-by-state survey results (attached as Appendix B), is clearly on the rise.

In addition to providing broadband connectivity to customers in an electric -service area, BPL systems may be used by electric utilities to manage their electric power networks more efficiently. Possible electric utility uses for BPL include automatic meter reading, voltage control, supervisory control and data acquisition (SCADA), equipment monitoring, energy management, remote connect and disconnect, power outage notification, and the ability to collect detailed power usage information (such as time-of-day power demand).

BPL is a "*carrier-current*" system that operates in the United States on an unlicensed basis under Part 15 of the FCC's rules, 47 C.F.R. § 15.1 *et seq.* (2004), which allows certain low-power unlicensed equipment to operate on a non-interference basis. *Carrier-current* is a term used to describe systems that intentionally conduct signals over electrical wiring or power lines. Prior *carrier-current* systems have been used for many years to conduct *low-speed* data over power lines. Because of the inherent impedance and attenuation variations of power lines, as well as noise from dimmer switches, motorized electrical appliances, computers switching on and off, and other devices, reliable *high-speed* communication over power lines has been difficult to achieve. However, the recent availability of faster digital processing technologies and the development of sophisticated modulation schemes have produced new designs that overcome these technical obstacles. These new designs have led to the development of new BPL systems that use spread-spectrum or multiple-carrier techniques and that incorporate adaptive algorithms to overcome the problems associated with noise in the power lines.

This report considers primarily what the FCC refers to as "Access BPL." In Access BPL, electric power lines are used to provide Internet connectivity into a home from an outside source. Access BPL employs outdoor devices that inject data signals into the medium- and low-voltage power distribution network to provide Internet access to a neighborhood. Since BPL signals cannot usually pass through an electric distribution transformer, additional equipment usually is required to allow the data signal to bypass distribution transformers, or to regenerate the data, in order to get the data signal into customers' homes.

In contrast to Access BPL, so-called "in-house BPL" utilizes indoor adapters to transmit data signals over existing interior electric wires within a home, and to connect the data signals to various appliances. In-house BPL systems use the electrical outlets available within a building to transfer information between computers and other home electronic devices and appliances, eliminating the need to install additional wires among devices.

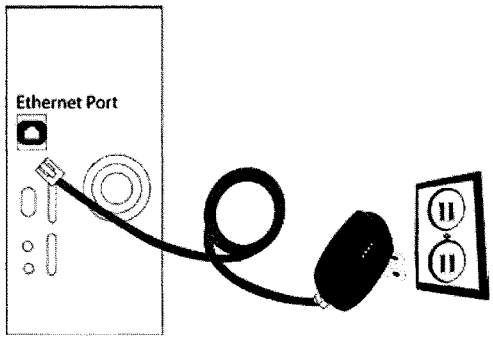

Exhibit 1. Plug-in Ethernet BPL Modem[5]

In a typical Access BPL system, the equipment required to provide service includes (1) injectors, (2) repeaters, and (3) extractors. BPL injectors are connected to the Internet via conventional technologies (e.g., fiber, copper, or wireless) and couple the broadband signal to MV (1,000-40,000 volts) power lines bringing power from an electrical substation to a residential neighborhood. MV power lines may be located overhead on utility poles or underground in buried conduit. BPL systems can be employed in either case. BPL systems are not presently deployed on high-voltage electric transmission lines.

BPL signals are conditioned and conveyed between the MV power distribution lines and the households within the service area by "extractors" that move broadband data in both directions. An extractor typically is located at each low voltage (LV) distribution transformer providing power to a group of homes. Some extractors boost BPL signal strength sufficiently to allow transmission through the LV transformer; others relay the BPL signal around the transformer via couplers on the adjoining MV and LV power lines. Other kinds of extractors interface with non-BPL broadband devices (e.g., WiFi transceivers) that extend the BPL network to the customers' premises.

A typical BPL signal will only propagate along a power line for 1,000 to 3,000 feet before it becomes too weak or distorted to be useful. To span longer distances between injectors and extractors, repeaters can be used to regenerate and amplify the signal and achieved the required strength and fidelity. It should be noted that some BPL providers choose not to employ repeaters, as they decrease overall available bandwidth, require the use of additional frequency spectrum, and introduce some latency (delay) in the data signal.

The following figure illustrates a basic BPL system, which can be deployed in cell-like fashion over a large area served by existing MV power lines by installing multiple injectors, repeaters, and extractors.

[5] Current Communications website at: http://www.current.net/LearnMore/HowItWorks/. Used with permission.

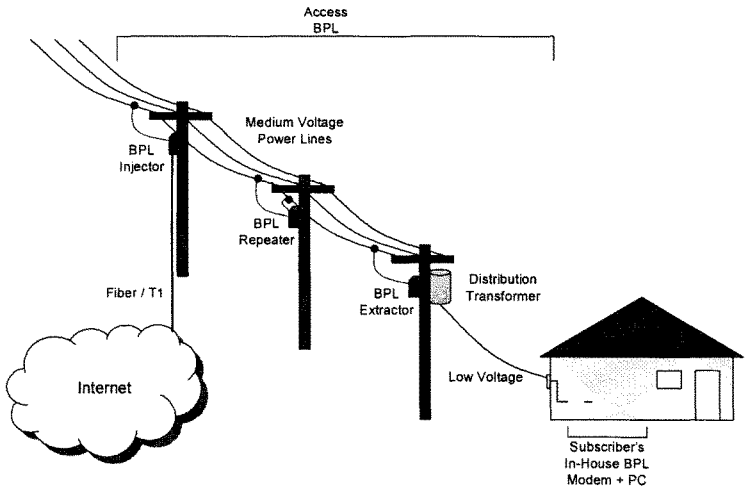

Exhibit 2. Basic BPL System[6]

Network Architecture

A number of different network architectures are used by BPL providers. In a report issued to address radio interference, the National Telecommunications and Information Administration (NTIA)[7] identified three principal network architectures used by BPL equipment vendors, as described here.

One system uses Orthogonal Frequency Division Multiplexing (OFDM) to distribute the BPL signal over a wide bandwidth using many narrow-band sub-carriers. At the BPL injector, data from the Internet backbone is converted into the OFDM signal format and then coupled onto one phase of the MV power line. An injector also converts BPL signals in the other direction from the MV power lines to the format used at the Internet backbone connection. The two-way data flow is transferred to and from the LV lines, each feeding a cluster of homes, using BPL extractors to bypass the LV distribution transformers. The extractor routes data and converts between access and in-house BPL signal formats.

The subscribers access this BPL signal using standard in-house BPL devices.

To span long distances between a BPL injector and the extractors it serves, repeaters may be employed. In this arrangement, the injector and extractors share a common frequency band (F1) on the MV power lines, different than the frequency band (F2) used on the LV lines by the subscriber's in-house BPL devices. In order to minimize contention for the broadband channel, Carrier Sense Multiple Access (CSMA) is used with Collision Avoidance (CA) extensions. This type of system is

[6] "Potential Interference from Broadband Over Power Line Systems to Federal Government Radiocommunications at 1.7 – 80 MHz, Phase 1 Study," NTIA Report 04-413, April 2004, at p. 2-2.
[7] *Id.*

designed to accept some amount of co-channel interference between quasi-independent BPL cells without the use of isolation filters on the power lines, as all devices on the MV lines operate over the same frequency band. BPL signals are coupled into one phase line. The BPL signal may be sufficiently tolerant of co-channel BPL interference to enable implementation of two or three independent systems on adjacent MV power lines.

A second BPL network architecture also uses OFDM as its modulation scheme, but differs from the first system in the way it delivers the BPL signal to the subscribers' homes. Instead of using a device that connects to the LV power lines, this second architecture extracts the BPL signal from the MV power line and converts it into an IEEE 802.11b WiFi signal for a wireless interface to subscribers' WiFi enabled appliances as well as to local portable computers having WiFi adapters. Technologies other than WiFi may also be used to interface to subscribers' devices with the BPL network. This wireless architecture that bypasses the house LV wiring is used by Amperion, Inc. An example of Amperion's equipment is shown below.

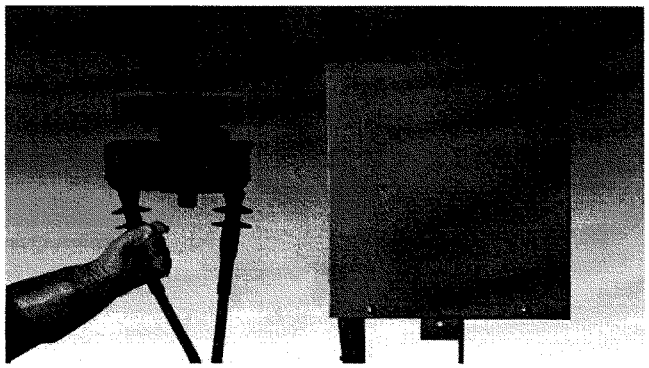

Exhibit 3. Amperion Power Line Coupler and Weatherproof Enclosure[8]

This second architecture uses different radio frequency bands to separate upstream (from the user) and downstream (to the user) BPL signals, and to minimize co-channel interference with other nearby Access BPL devices. To span long distances between a BPL injector and the extractors it serves, repeaters may be employed. Like the injectors, the BPL repeaters transmit and receive on different frequencies, and they use different frequencies from those used by the injector and other nearby repeaters. A repeater may also provide the capabilities of an extractor when outfitted with a WiFi transceiver. Like the first architecture described above, this approach couples BPL signals onto one phase of the MV power line.

Finally, a third type of BPL network architecture uses Direct Sequence Spread Spectrum technology to transmit the BPL data over the MV power lines. All users within a BPL cell share a common frequency band. In order to minimize contention for the channel, CSMA technology is used. As in the first architecture described, this type of system is designed to accept some amount of co-channel interference between cells, as all devices operate over the same frequency band. At one deployment

[8] Amperion website, at www.amperion.com/products.asp. Used with permission.

site using this third type of architecture, the BPL service provider independently implements two channels on the same run of three-phase power lines.

Each cell in this third embodiment includes a concentrator (injector) that provides an interface to a T1 or fiber link to the Internet backbone, a number of repeaters (extractors) to make up for signal losses in the electric power line and through the distribution transformers feeding clusters of dwellings, and customer premises BPL equipment, which is used to bridge between the user's computer or other appliance and the electrical wiring carrying the BPL signal. Adjacent cells typically overlap, and the customers' BPL terminals and repeaters are able to communicate with the concentrator that affords the best communication path at any time. An injector in this type of system couples the BPL signal onto the power line using a pair of couplers, one on one of the phase lines and the other on the neutral line. This architecture has been employed by Main.net.

Another experimental BPL architecture utilizes the 2.4 gigahertz (GHz) and 5.8 GHz unlicensed bands. An implementation using multiple IEEE 802.11b/g Wi-Fi chips sets has been used to demonstrate the concept of carrying data over MV power lines at rates exceeding 200 Mbps. However, no party filed comments in the FCC's BPL proceeding contending that this technology and associated frequencies should be considered in the Part 15 BPL proceedings.

Radio Interference

In accordance with Part 15 of FCC regulations, 47 C.F.R. pt. 15, BPL must operate on a noninterference basis relative to licensed services. It must accept interference from licensed services and not cause harmful interference to them. Examples of licensed services below 30 megahertz (MHz) are AM broadcasters, amateur radio operations, aeronautical services, maritime operations, and land mobile services. Users of this spectrum also include, for example, public safety and federal government agencies.

Most Access BPL systems today operate on frequencies up to 80 MHz with very low power signals spread over a broad range of frequencies. BPL must comply with federal radiated emission limits for CCS (below 30 MHz) and Class A/B digital devices (above 30 MHz).

One of the main issues requiring attention in connection with BPL deployment is actual and potential radio interference. BPL systems use frequencies that radiate into the air from the open wire power conductors, causing possible interference to licensed services, including emergency services and amateur radio operators. Unlike other broadband conductors, open-air power lines are excellent radiators of the frequencies used in BPL systems, so they behave as transmitting (and receiving) antennas. This issue has not arisen in connection with other broadband distribution technologies because copper twisted-pair wiring (used for xDSL), coaxial cable, and fiber are all effectively non-radiating mediums.

The radio frequencies used in BPL systems generally lie in a range between 1 and 80 MHz. This part of the radio spectrum has unique properties that do not occur at other frequencies. Of particular importance is the fact that radio waves at these frequencies can "bounce" off the ionosphere to travel very long distances. Certain frequency bands in the high-frequency range are used by amateur radio operators to communicate around the world using very low transmitted power levels. Harmful interference can occur if a BPL system operates in the vicinity of a licensed operator using the same frequency. However, BPL providers addressing interference issues claim that the technology now exists to "notch-out" (refrain from using) frequency bands that are used by proximate amateur radio operators. They also suggest that improved modulation schemes may help address issues regarding signal-to-noise ratio at very low power levels required to avoid interference. Data-encoding methods

may be employed to prevent electronic eavesdropping, in order to provide confidential and secure communications using a BPL system. However, groups that have an interest in maintaining authorized uses of the radio airwaves (such as ham and shortwave radio operators and emergency governmental frequency users) have been adamant that BPL causes radio interference and will create widespread problems if it is widely deployed. Some radio amateurs and broadcasters contend that, in addition to causing interference near the power lines on the particular frequencies used, BPL will be a ubiquitous polluter of the radio spectrum, causing a substantial rise in background radio-frequency noise levels—something akin to "radio smog." The ARRL has demonstrated both the interference effects of BPL on amateur radio communications and the strong interference from very low-power high-frequency transmitters into a BPL network, using BPL test sites operating in the United States. These concerns merit consideration, if only because much of the emergency response system in place today relies on these radio frequencies.

Radio broadcasters have also expressed concern about the potential of BPL to prevent their signals from reaching listeners. The Research and Development branch of the British Broadcasting Corporation (BBC) released a report on a brief BPL trial in Scotland. The two competing BPL systems in operation in the town of Crieff both interfered with high frequency broadcast reception. Tests were conducted at four locations. At the first location, a residence, interference from a Main.net modem was audible even on very strong broadcast signals. Reception was also significantly impaired at a neighbor's house, as well as at various locations in the street between the residence and the substation serving it. This was despite the fact that the main electrical distribution cable was underground.

In the United States, the FCC has been the primary forum for resolving radio interference claims. Throughout most of 2004, the FCC conducted a rulemaking to consider BPL-specific changes to its Part 15 rules that govern radio frequency interference.[9] Instrumental to the FCC's deliberations was the exhaustive

Phase 1 study on radio interference conducted by the NTIA, which resulted in an April 2004 report with recommendations.[10]

As referenced earlier, the FCC concluded its Part 15 rulemaking in October 2004 and made several significant changes in its rules applicable to BPL. For example, the FCC rules:

- Clarify that the existing Part 15 radio frequency emissions standards apply to BPL;
- Impose operational requirements for BPL systems to promote avoidance and resolution of harmful interference, including technical mitigation capabilities like "notching;"
- Prohibit BPL in specified frequencies and geographical areas designated for licensed uses for aeronautical and maritime functions;
- Create consultation requirements with public entities related to public safety;
- Establish a publicly accessible database of Access BPL systems as a means of public notification;
- Impose FCC certification requirements on Access BPL equipment; and
- Introduce improved measurement procedures and guidelines to test BPL equipment for radio interference.[11]

[9] See *supra* note 2.
[10] See *supra* note 6.
[11] This synopsis of the FCC's technical rules is based in part on the October 24, 2004 presentation of the FCC's Bruce Franca to the Task Force, as well as the FCC's October 14, 2004 press release.

To implement interference mitigation solutions while simultaneously maximizing the usable bandwidth of the broadband channel provided, BPL systems are expected to use new modulation techniques that can support more sub-carriers that are more finely spaced. As data rates and bandwidth requirements grow, the BPL systems may operate at greater overall transmitted power levels but not necessarily with higher power density than is used today. BPL vendors may employ techniques to dynamically adjust the power level to maintain a minimum signal-to-noise ratio over the entire BPL spectrum, while limiting emissions to levels compliant with Part 15. One vendor has proposed such a solution for adjusting transmitted power to maintain a constant signal-to-noise ratio across the BPL spectrum, with a hard limit based on Part 15 rules. The challenge will be to develop a control mechanism that can optimize the broadband signal while simultaneously limiting the radiated emissions, perhaps in conjunction with frequency agility and adaptive filtering.

Nortel has developed and patented a filter that blocks BPL signals while concurrently passing medium-voltage AC power. The judicious use of such blocking filters could enable segmentation of BPL networks into adjacent cells of various sizes having low conducted interference from neighboring cells. This technology could give a BPL operator more flexibility to mitigate local interference and enable a greater level of frequency reuse in BPL systems than what is currently possible.

Aside from the technical findings reflected in the Part 15 rule revisions, the FCC's decision to address these issues head-on is itself significant. *The rules should foster BPL's acceptance as a mass-market technology by conferring a measure of assurance that radio interference issues will not frustrate its progress.* The FCC expressed confidence that its new Part 15 would be adequate for this purpose:

> It is our intention to ensure that Access BPL operations do not become a source of harmful interference to licensed radio services. Based on extensive research, analyses, and practical experience, we also continue to believe that the interference concerns of licensed radio users can be adequately addressed and that Access BPL systems will be able to operate successfully on an unlicensed, non-harmful interference basis under the Part 15 model. In this regard . . . we find that the harmful interference potential from Access BPL systems operating in compliance with the existing Part 15 emission limits for carrier current systems is low in connection with the additional rules we are adopting. From the information provided by our field tests, the tests conducted by NTIA, theoretical predictions by NTIA and ARRL, and experience of the several tests of Access BPL systems, we observe that the potential for any harmful interference is limited to areas within a short distance of the power lines used by this technology. As emphasized by NTIA's Phase I study and comments, interference can be rapidly eliminated through various means should it occur. . . . . [T]he broadband service capabilities of Access BPL systems offer important opportunities for establishing a new medium for broadband access and for introducing new competition in the broadband market. We believe that it is important to set forth rules that will promote this service now, rather than delay. . . . . While some cases of harmful interference may be possible from Access BPL emissions at levels up to the Part 15 limits, we agree with NTIA that the benefits of Access BPL service warrant acceptance of a small and manageable degree of interference risk.[12]

[12] FCC Report and Order at 23.

It is likely that interference concerns will continue to be debated. Commissioner Copps noted his concerns regarding radio interference. Although Commissioner Copps approved the technical rule changes, he dissented in part to the FCC's decision.[13]

At the Task Force meeting on October 24, 2004, Paul Rinaldo, ARRL's Chief Technology Officer, cogently summarized ARRL's views on interference. He cautioned that avoiding radio frequency interference is not a matter of core competence for the electric utility industry.

NARUC and the Task Force recognize the FCC's jurisdiction over radio emissions and its role as arbiter of these issues. The Task Force is optimistic, however, that the FCC's solution will sufficiently resolve the interference issues so that BPL can deliver on its promise of delivering universal, economical broadband service and improvements to electricity delivery systems.

Technical Constraints on Rural Service

Because electric distribution lines exist in most rural areas, many have hoped that BPL would help solve the problem of how to extend economical broadband services to underserved areas that are too sparsely populated to have broadband access through cable television lines or DSL. However, most observers close to the BPL industry are not optimistic with regard to this potential.

As noted earlier in this discussion, BPL configurations use electric lines to provide a last broadband link to end-users that are already proximate to (within ¼ to ½ of a mile of) fiber optic nodes or other modes of broadband services. *In other words, the electric line acts as a means of distribution, not as a long-haul carrier; even then, the signal must be regenerated frequently (every 1,000 to 3,000 feet) with repeaters.*

Some have viewed BPL as a relatively economical means of providing service to smaller numbers of closely-spaced users. A good example is Central Virginia Electric Cooperative, which is initiating service on a pilot basis to a rural area. However, this approach is financially viable only if enough customers (e.g., a residential subdivision) are located sufficiently close to a point where a signal can be injected from a long-haul broadband medium to the electrical system. *Under the current state of technology, BPL is both density- and distance-sensitive; as in other utilities, scale economies apply.*

The Task Force has yet to be presented with a technical solution that would extend BPL to widely dispersed rural users, each miles apart from the others. However, technology may advance to the point where rural BPL may become possible. We remain optimistic that sufficient rural demand will drive innovation and help make broadband access a reality for rural areas. We will continue to monitor rural BPL developments throughout 2005.

BPL Projects and Deployment

To date, BPL's apparent technological potential has induced a variety of electric utilities to deploy it throughout the United States, in most cases on an experimental or "pilot" basis. The most notable examples of the few full-scale commercial deployments are those by Cinergy in Cincinnati, Ohio and

[13] Commissioner Copps also criticized the unduly technical scope of the rulemaking, arguing that the FCC should have gone on to address "issues such as universal service, disabilities access, E911, pole attachments, competition protections, and, critically, how to handle the potential for cross-subsidization between regulated power businesses and unregulated communications businesses." Statement of Michael J. Copps at 2, *Carrier Current Systems, including Broadband over Power Line Systems*, ET Docket No. 03-104; *Amendment of Part 15 regarding new requirements and measurement guidelines for Access Broadband over Power Line Systems*, ET Docket No. 04-37 (Oct. 28, 2004).

the municipal utility in Manassas, Virginia. In late 2004, NARUC surveyed the States regarding BPL deployments; the detailed results of that survey are included as Appendix B to this report.

IV. SECURITY

A premise of this discussion is that the concepts of security and reliability are intrinsically related. In the electricity context, reliability typically means that customers can obtain a given quality and quantity of electrical energy, more or less on demand, within the parameters specified in national electric reliability standards, quality-of-service rules enforced by State regulators, and utility tariffs. The concept of reliability directly triggers security concerns, as the greater part of modern-day society, including services integral to health and well-being, simply does not function without a reliable supply of electricity (or reliable emergency backup power when normal distribution is interrupted). Other utilities and networks are highly dependent on electricity. If an interruption occurs, arrangements must be in place to ensure that hospitals can continue to provide care, traffic signals continue to work, water and wastewater are pumped, public transportation systems run, emergency communications are effective, economic losses and disruptions to businesses are minimized, and so on.

The events of September 11, 2001 and August 14, 2003 provide dramatic illustrations of the relationship between security and electric reliability. However, disruptions on a smaller scale also raise concerns. The growing reliance of the economy on complex and integrated information and data processing has increased the demand for a higher quality of reliable power and simultaneously reduced customers' tolerance for even momentary electricity outages.

A discussion of BPL's implications for security would not be complete without acknowledging radio interference issues. Emergency response capabilities in use today often depend upon unlicensed frequencies to maintain communications. As noted earlier, these issues have been entrusted to the FCC, which has promulgated its Part 15 rules to accommodate the needs of users of unlicensed frequency.

Enhanced Electric Utility Reliability and Security

Even though BPL is commonly viewed as a communications technology that uses electrical power lines, it has tremendous potential for enhancing the operability of the electric grid itself. An excellent example of potential technological synergy, communications capabilities embedded within the electric system could make possible dramatic enhancements in the efficiency and reliability of electric utilities' power operations. The ultimate goal in this respect is development of the "intelligent" or "smart" grid." A very useful explanation of the smart grid concept appears in a June 2003 report authored by the Smart Grid Working Group of the Energy Future Coalition.[14]

The term "smart grid" refers to an electricity transmission and distribution system that incorporates elements of traditional and cutting-edge power engineering, sophisticated sensing and monitoring technology, information technology, and communications to provide better grid performance and to support a wide array of additional services to consumers. A smart grid is not defined by what technologies it incorporates, but rather by what it can do. The key attributes of the 21st century grid include the following:

[14] The report can be found at http://www.energyfuturecoalition.org/full_report/app_smart_grid.pdf.

- *The grid will be "self-healing."* Sophisticated grid monitors and controls will anticipate and instantly respond to system problems in order to avoid or mitigate power outages and power quality problems.
- *The grid will be more secure from physical and cyber threats.* Deployment of new technology will allow better identification and response to manmade or natural disruptions.
- *The grid will support widespread use of distributed generation.* Standardized power and communications interfaces will allow customers to interconnect fuel cells, renewable generation, and other distributed generation on a simple "plug and play" basis.
- *The grid will enable consumers to better control the appliances and equipment in their homes and businesses.* The grid will interconnect with energy management systems in smart buildings to enable customers to manage their energy use and reduce their energy costs.
- *The grid will achieve greater throughput, thus lowering power costs.* Grid upgrades that increase the throughput of the transmission grid and optimize power flows will reduce waste and maximize use of the lowest-cost generation resources. Better harmonization of the distribution and local load servicing functions with interregional energy flows and transmission traffic will also improve utilization of the existing system assets.[15]

The report explains how the smart grid could enhance security and reliability. While promising dramatic improvements, the smart grid currently remains a futuristic concept. Some of the enabling technologies may actually exist or appear in various stages on the drawing board, but they are not yet widely deployed. In this respect, the smart grid is much like BPL itself; both concepts are technically viable but neither has been widely deployed. Viewed in context, BPL could become one of many enabling technologies that could help to turn the smart grid a working reality.

Most of the presentations and literature reviewed by the Task Force have focused on BPL as a communications technology that would enable electricity customers to obtain broadband service. Typically, utilities undertaking BPL as a business opportunity (to earn additional revenues from communications services) put it in place on a small scale, so as to minimize risks. Most utilities that have actually deployed BPL service follow this profile.

Less discussion has centered on how BPL will facilitate enhanced utility network operations as conceptualized as smart-grid applications. Some observers have suggested that BPL could prove to have more value as a means of enhancing electric utility operations than as a means of extending broadband. Consolidated Edison Company and Hawaiian Electric Company are examples of utilities that have implemented BPL projects to improve operational capabilities. Mike McGrath, Executive Director of Retail Energy Services for the Edison Electric Institute (EEI), advised the Task Force that electric system enhancement is the primary objective for roughly half of the investor-owned utilities interested in BPL. He pointed out that other non-BPL communication technologies can also contribute to electric system enhancement. Others at the October 24, 2004 Task Force meeting asserted that every electric utility pursuing BPL is actively interested in system enhancement, despite the apparent focus on small-scale roll-outs for revenue enhancement. According to Current's Jay Birnbaum, Cinergy, which may have the most extensive rollout of BPL-enabled broadband service to electric customers, remains vitally interested in BPL's potential for improving electric service. Although Cinergy has not yet implemented system-wide applications, it is pursuing them and might not have started down the BPL path were it not for the promise of enhanced operations.

[15] *Id.*

Work by the Electric Power Research Institute's (EPRI) IntelliGrid Consortium has focused on an open-source communication architecture and how communication between elements of the power supply system could be handled so that smart devices can tie into any available communication medium. BPL can be an enabling technology in support of these smart systems. Analysis suggest that a communications system that enables better management of power use and demands could be roughly worth seven times the initial expenditure.[16]

A BPL-enabled intelligent grid could have a greater ability to detect and automatically repair potential problems before they occur. It could make the grid less susceptible to terrorists, technological failures, or natural disasters. It also would require these communications capabilities to be seamlessly capable of tapping into BPL, cable modem DSL, WiFi, and WiMax. Metering applications include remote metering reading, meter theft and tampering detection, and net metering. Demand-side management applications include tailored time-of-use pricing and control of customer's electrical systems for load control. Within the power delivery system, the ability to monitor substation and various equipment components could enhance security, as well as allow sensors to detect the potential for equipment failure, facilitate its replacement before an outage occurs, and restore service expeditiously when an outage occurs.

The BPL rollout by the City of Manassas, Virginia, while not rising to the level of the smart grid, is a promising example of how an electric utility can enhance its system monitoring capabilities. According to Allen Todd, the City's Director of Utilities, the Manassas BPL application is somewhat unusual in its primary focus on improving system monitoring. Making high-speed Internet access available to city residents was an added bonus, but not the original impetus for BPL. By installing this communications capability, Manassas can pinpoint where faults and failures are occurring in much finer geographic detail. The City also has converted from manual to automated readings of electric meters to reduce costs and improve accuracy.

Other enterprises formed to exploit BPL as a business opportunity are also touting its advantages as an operational enhancement. Current and Amperion are both providing BPL service in working partnerships with the backing of affiliates of investor-owned electric utilities. Both contend that BPL can provide various enhanced operational capabilities.

BPL customer service and applications should consider both the range of "value-added customer services" such as Internet access, VoIP, and real-time billing data and energy consumption along with "utility network management," which would include a range of capabilities such as automated meter reading, outage detection, dynamic pricing information, security monitoring, etc.[17] If BPL can be used to enable the communication capability of the power supply system, the benefits of more efficient, secure, and reliable utility operations can be achieved.

Whatever technology is utilized, the potential benefits of the smart grid for both security and reliability are significant, as envisioned and quantified in a July 2004 EPRI report.[18] According to the study, a goal of the power system of the future is to achieve "[p]hysical and information assets that are protected from man-made and natural threats and a power delivery infrastructure that can be quickly restored in the event of an attack."[19] The benefits of the smart grid of the future accrue to both the power delivery systems and consumers, as shown below. These benefits extend well

[16] Clark W. Gellings and Karen George, "Broadband Over Powerline 2004: Technology and Prospects," EPRI, November 2004, p. 17. Citation and analysis used with permission of EPRI.
[17] *Id.* at p. 16.
[18] *Power Delivery System of the Future: A Preliminary Estimate of Costs and Benefits*, EPRI. Palo Alto, CA: 2004, 1011001. Reproduced with permission of EPRI.
[19] *Id.* at p. 2-1.

beyond the security and reliability considerations that are at the center of the Task Force's attention in this report.

Power Delivery (Improvements/ Benefits)	Attributes	Consumer (Improvements/ Benefits)
O&M Cost Capital Cost of Asset T&D Losses	***Cost of Energy (Net delivered life-cycle cost of energy service)***	End Use Energy Efficiency Capital cost, end user infrastructure O&M, End User Infrastructure Control/Manage Use
Increased Power Flow New Infrastructure Demand Responsive Load	***Capacity***	Improved power factor. Lower End User Infrastructure cost through economies of scale and system streamlining, expand opportunity for growth
Enhanced Security Self Healing Grid for Quick Recovery	***Security***	Enhanced Security and ability to continue conducting business and every day functions
Improve Power Quality and enhance equipment operating window	***Quality***	Improve Power Quality and enhance equipment operating window
Reduce frequency and duration of outages	***Reliability & Availability***	Enhanced Security Self Healing Grid for Quick Recovery Availability Included
EMF Management Reduction in SF6 (sulfur hexafluoride) emissions Reduction in cleanup costs Reduction in power plant emissions	***Environment***	Improved Esthetic Value Reduced EMF Industrial Ecology
Safer work environment for utility employees	***Safety***	Safer work environment for end-use electrical facilities
Value added electric related services	***Quality of Life***	Comfort Convenience Accessibility
Increase productivity due to efficient operation of the power delivery infrastructure Real GDP	***Productivity***	Improved consumer productivity Real GDP

Exhibit 4. Attribute and Types of Improvements Assumed in the Value Estimation of the Future Power Deliver System[20]

The EPRI study quantified the net benefits from investing in this futuristic grid[21] The required applications included automation, communication architecture (a key foundation), distributed resources, electronic based controllers, consumer portals, and more. Over and above the investments needed to meet load growth and correct existing limitations, the cost of implementation was estimated at $165 billion over 20 years. This constitutes an annual investment of $8.3 billion above the approximately $18 billion in current annual investment. According to the study, the investment would yield a 20-year net benefit of between $638 billion and $802 billion, or a benefit-cost ratio ranging from about 4:1 to 5:1. Importantly, most of the benefits are attributable to reliability and security, as seen on the following graph based on the more conservative lower bound of the range of estimates. The principal benefits to reliability are the reduction in costs associated with poor power quality and outages that together cost United States consumers $119 billion to 188 billion annually.

[20] Power Delivery System of the Future: A Preliminary Estimate of Costs and Benefits, EPRI. Palo Alto, CA: 2004, 1011001. Reproduced with permission of EPRI.
[21] *Id.*

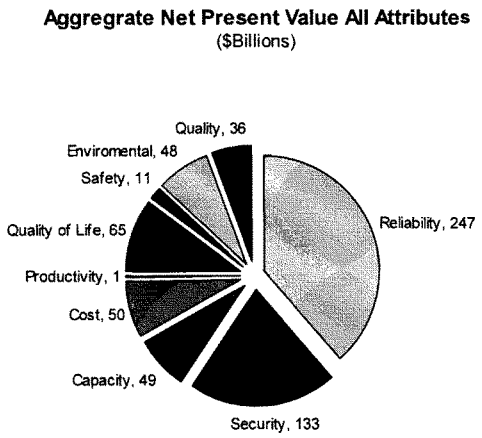

Exhibit 5. Estimated Net Present Worth ($ Billions) of the Improvements for all Attributes Over the 20-Year Study Period (Assuming Primen Lower Bound)[22]
Net Present Worth (5% Discount Rate) = $638 Billion
Annualized Value (5% Discount Rate) = $5.1 Billion/Year

These findings suggest that BPL can help realize a future power supply system that is more reliable, more secure, and better able to meet the technology needs of the future, as well as provide other significant benefits.

System Interdependencies

If BPL providers develop their own equipment and infrastructure, the multiplicity of technologies may result in incompatibility, raising a number of questions: If each provider or electric utility develops its own architecture for a BPL-enhanced smart-grid technology, what would be the effect on the reliability and security of the electric grid as a whole? Could there be a loss of efficiency as different electric systems deploy incompatible equipment? Could scale economies be foregone in the absence of standardized equipment or technologies?

Erich W. Gunther, Chairman and Chief Technology Officer of EnerNex Corporation, is an expert on technological issues who has considered the architectural design needs of a smart grid. In his view, the strength of BPL is that it makes more communications capability available at a lower cost. He believes that BPL is technically viable as a means of making the grid work smarter. According to Mr. Gunther, the sticking point is the little progress to date in addressing how to make the security of a BPL-based technology platform compatible with the dual functions of enhanced electric grid operation and high-speed Internet access. A single system makes both functions interdependent and, as such, creates its own security risks. He contends that the vulnerabilities of electric utility operations and Internet services are different and that the risks of security breaches for each type of system also differ considerably. As a simplistic example, the vulnerability of a BPL-based SCADA system to computer hacking could threaten the electrical supply and disrupt the economies of entire

[22] *Id.* Reproduced with permission of EPRI.

regions. The threat posed by a hacker to a broadband subscriber is also serious, but the harm tends to be more localized. The criminal prosecutions used to deter "conventional" hackers may be inadequate as a means of protecting an entire society against someone intent on jamming the entire BPL system to disrupt electricity service, communications, or both.

Mr. Gunther finds that the development of appropriate software is a possible means of reconciling the security needs of an interdependent system. Encryption of communications signals will probably be part of any solution. In addition, evaluation studies can be used to assess the costs and benefits of potential solutions across the entire range of interdependent functionalities, as well as anticipate obstacles to implementation. Mr. Gunther predicts a solution for BPL-enhanced electric security is at least five years away. He cautions that no technology should be deployed for its own sake.

According to Mr. Gunther, current modes of communications used by electric utilities for their operations are very insecure. They are typically radio-based or rely on closed-circuit lines. A radio signal can be intercepted and a telephone line can be tapped, but either approach requires physical proximity to the communications signal. In contrast, BPL-based communications are not distance-sensitive. Devising an encryption-based solution for BPL could improve the present level of grid security, but only if it is tamper proof.

It should be noted that BPL raises another interdependency issue by combining two public necessities—electric supply and communications services—on a common grid. Unlike plain old telephone service, which can work reasonably well during electrical outages, BPL would be subject to the same degree of interruption as electric service. Thus, moving Internet access and other communications capabilities (such as VoIP) to a BPL platform may diminish the protection afforded through the redundancy built into today's infrastructures.

Finally, regarding cybersecurity, Mr. Gunther advises that BPL raises roughly the same security issues as other forms of broadband communications. One possible exception is some BPL providers' reliance on WiFi to provide a final link to the broadband subscriber. WiFi and other wireless forms of broadband connection present some different vulnerabilities than cable television or DSL access. While these issues are important in relation to such matters as intrusions upon privacy, identity theft, and police surveillance, they are beyond the scope of this discussion of cybersecurity requirements associated with utility enhanced operations using smart grid concepts.

These issues require careful consideration to ensure that one set of physical vulnerabilities would not simply be traded for a set of cyber vulnerabilities. From a security and reliability perspective, the electricity system must be made fail-safe with respect to BPL; electricity must continue to flow regardless of whether the BPL system is operating, damaged, or compromised. Likewise, the implications of an electricity system failure for loss of communications service must be fully understood and appreciated, with appropriate safeguards put into place prior to wide applications. It would be useful to evaluate BPL and other broadband technologies in terms of their comparative implications for security, reliability, and other performance criteria.

V. REGULATORY

The regulatory issues and concerns posed by the deployment of BPL can be divided into two general categories: issues arising from the regulation of electric companies and issues arising from the regulation of communications. Each of these broad categories includes several subcategories, and each involves issues that relate specifically to the federal and State regulation of the two industries. Generally, however, regulatory issues for both sectors overlap and can be organized into five areas of

concern: cost allocation; affiliate transactions; rights-of-way; provider access; and licensing and telephone legacy regulation. Most of these rest squarely within the purview of State commissions.

While this list is certainly not exhaustive, it contains what the Task Force believes to be the crucial regulatory issues surrounding BPL deployment facing State policy makers. The Task Force welcomes input on these and other regulatory issues. While few States have formal dockets open to examine these issues, the Task Force hopes to spend more of its efforts in 2005 formulating a collection of best practices as a reference tool for State regulators.

Cost and Revenue Allocation

Electricity distribution remains a highly regulated function across the States. For the most part, traditional, cost-based rate-of-return methods and standards apply to investment in and cost recovery for the electricity distribution companies. If and when the distribution system is used to provide another unrelated service, traditional regulatory questions arise regarding allocation of costs and revenues.

One key question presented to State policy makers is whether and how to assign an appropriate allocation of the costs of the electric distribution system to BPL service. The telecommunications industry faced an analogous situation when local telephone companies began to install modern switching equipment, which came with the vertical features, functionalities, and capabilities that made possible, among other things, such discretionary services as call waiting and caller ID. Sensing a new revenue opportunity, telephone companies began to market these new, nontraditional, discretionary services to their plain old telephone service (POTS) customers; many faced competition from inside and outside the traditional telephone industry. Arguments for allocating only the negligible incremental cost of providing the vertical telecommunications services[23] were countered by arguments that these discretionary services should bear their share of fully allocated costs. By allocating costs in this manner, the vertical services would fund some portion of the investment in local switching, help subsidize universal service, and help keep the cost of POTS affordable.

Comparable questions arise for BPL, which for the present involves mainly small pilot programs. As deployment becomes more widespread, cost allocation issues will come to the fore, particularly if raised in the context of electric rate cases. Based on historic cost accounting principles utilized by many regulatory commissions, the direct costs of BPL and that portion of the common costs of the distribution system attributable to BPL probably should not be supported by core electric ratepayers; rather, these costs should be imputed to BPL service. If these costs are not removed from electric rates, the captive electric ratepayers would arguably subsidize the deployment of BPL and also bear a degree of risk for what could be a speculative venture.

The question differs somewhat, but not entirely, if the electric utility uses BPL in whole or in part for its own operational purposes. Some electric companies may see BPL principally as a valuable communications options to offer their customers. Others appear far more interested in the use of BPL technology as a stepping stone to the "smart grid" or to otherwise enhance their electric

[23] Basically zero or close to it, given that the cost of investing in the new switching equipment was largely fixed. *See, generally*, Kahn, Alfred E., Letting Go: Deregulating the Process of Deregulating, (MSU 1998) at 83-89 as perhaps the best known and strongest proponent for minimal allocations. An interesting aside is found in n. 112 page 83 of this book, where Kahn suggests for any direct transfer/divestiture of assets that "purchasers of regulated services would, indeed, be entitled, under *original cost regulation* to any capital gains – the difference between depreciated acquisition costs and sales prices – on any assets sold or otherwise transferred: the same would seem to apply to access transferred to an unregulated affiliated entity."

distribution capabilities, as discussed earlier. Several commentators have suggested that the benefits of enhanced operations—to both the company and its customers—may with time cover most if not all of the expenses related to deployment. Improving system reliability and the efficiencies gained through the use of remote load management, outage detection and management, customer notice, trouble reporting, and the like will likely be used to justify investment in the technology.

Using a fully allocated cost methodology, BPL would fund a portion of the distribution system's investment and maintenance cost and lower costs allocated to electricity use.

Using an incremental-cost methodology, the costs of entry into the BPL market would likely be lower (as in the example above), making broadband availability thus more ubiquitous and more affordable to the communications customer.

Traditionally, regulated utilities that engage in unregulated activities (assuming no divestiture) generally are required to segregate costs and risks to protect core customers. Sometimes, however, revenues from unregulated activities are used to reduce the cost of regulated electric service. If the embedded distribution system cost of BPL is fully allocated, some argue that any revenues derived from BPL should fall to the unregulated side of the electric utility business and not be used to offset electric rates. The allocation question becomes more complicated for utilities that also use the technology for the benefit of the regulated electric utility business (as in "smart grid" applications, remote meter readings), as well as for retail broadband service (whose customers may but are not necessarily in all cases also electricity customers). In that case, some suggest BPL costs could be carefully allocated to both regulated and unregulated functions, based on burdens and benefits.

Regardless, costs must be somehow recorded in the system of accounts prior to judgments about their allocation.

Various stakeholders have expressed views on cost allocation issues. EEI contends the costs of BPL to utilities may include labor, equipment, management, and reasonable fees to ensure removal of the system, if required. EEI also asserts that:

- Costs incurred for the benefit of improving the operation of the electric system should be allocated to regulated customers just as any other electric system investment would be allocated; and
- Remaining costs should be allocated to the BPL activity, and recovered from the activity or the provider.

The Power Line Communications Association (PLCA) suggests that State commissions:

- Require BPL affiliates to pay their share of fully loaded incremental costs of BPL deployment;
- Require a level playing field: DSL and cable modem only pay incremental costs of POTS and cable television networks; and
- Not require BPL affiliates to bear any sunk costs in the existing network.

The National Energy Marketers Association (NEMA) posed several questions regarding BPL cost allocations:

- What specific costs are associated with using space for BPL?
- What other costs should fairly be allocated to the space used by BPL?

- Should BPL customers pay twice for system maintenance or upgrades included in rate base?
- Who owns the unused space on power lines?
- Who should receive revenues from the use of this space?

Some BPL providers and electric companies have argued that if regulators choose to impose limits on BPL revenue retention, the earning potential of a company for providing the service may not be sufficient to motivate investment. However, many States have rules, methodologies, precedents, or statutes in place that address fairness in cost allocation and revenue sharing. The Task Force realizes that, as with other similar accounting or allocation issues, a one-size-fits-all answer may not be suitable for all States. The Task Force plans a continued focus on this issue so that reasonable alternatives can be offered for individual States to consider.

Affiliate Transactions

Another cost allocation issue concerns affiliate transactions. Generally, State rules and/or law prohibit electric companies from cross-subsidizing their non-regulated activities with monies collected from captive ratepayers. In all likelihood, this restriction would apply to BPL communications services as well. State regulators are rightly concerned about potential cross-subsidization issues, including the unlikely possibility that captive electric ratepayers may be forced to subsidize a failing BPL business though, *inter alia*, an increase in the cost of capital, to save the core utility as a whole.

While cross-subsidization is a concern to captive ratepayers within the regulated electric utility, it is also a major concern to competitors in the communications industry. When a company can subsidize its competitive product or service, its behavior is anti-competitive because it enjoys an unreasonable advantage over competitors. If costs and revenues related to BPL are not allocated properly, one service will likely subsidize the other. Unless tangible benefits are perceived to accrue fairly to all ratepayers, ratepayer advocates will likely object, but competitors using different technologies will certainly point to a regulatory tilt in favor of the subsidized service.

One approach to protecting ratepayers (and competition) is to require structural or functional separation between the regulated electric company and its affiliate BPL provider. Structural separation could provide protection in the event of a catastrophe, but it does not avoid the cost allocation challenge described above (that is, the allocation of embedded or marginal costs to the respective services). Moreover, structural separation could result in unnecessary duplication of resources and defeat some of the other efficiencies that could otherwise be gained by electric companies providing BPL. Structural separation would most certainly add to the utility's cost of market entry.

An alternative approach would be to impose functional separation, using appropriate accounting rules, to facilitate cost allocation and guard against cross-subsidization. Participants in the regulatory process often disagree about whether the residential class is subsidized by the commercial and industrial classes, and whether such subsidies are justified. However, subsidy of unregulated activities is not accepted. New protective accounting techniques in this regard are ring-fencing and firewalls.

Regarding affiliate transactions, EEI has stated that:

- A public utility commission's review should be limited to review of the utility's transactions alone;
- Specific BPL regulations are counter-productive;
- All BPL providers, including affiliates, should be free to set rates and terms based upon market conditions; and
- Affiliate transaction rules should not prohibit using the "scope and scale" of the utility–including the use of the utility's name.

Cinergy specifically points out that its wholly-owned subsidiary, The Cincinnati Gas & Electric Company (CG&E), provides access to its electric distribution network to a joint venture between Current and another Cinergy subsidiary, Cinergy Broadband. This venture, which operates under Current's name, is an unregulated broadband provider. Through the arrangement, Current utilizes few CG&E assets and pays the legally required rate for those it does use. As a general rule, Current does not rely on the utility for other assets or services. For example, the customer-care operations of CG&E (billing, credit, collection, and call centers) are not used for BPL operations. In addition, Current uses CG&E-approved contractors, retained and paid for directly by Current, rather than CG&E line crews. Similarly, when CG&E employees provide other services to Current, such as by assisting in safety evaluations of BPL equipment designs, CG&E employees keep track of their time using accounting codes used to bill to the joint venture at CG&E's fully allocated cost. Finally, Cinergy notes that any affiliate requirements established by the Public Utility Commission of Ohio pertain to its BPL deployment in the same manner as it is applied to any other non-regulated affiliate of Cinergy.

In many of the current deployments of BPL, electric utilities have sought to structure their business relationships with non-affiliated BPL providers through arm's-length contractual relationships. A good example of this type of arrangement is Consumers Energy Company, which is planning a BPL deployment in Grand Ledge, Michigan. Gerald D. Wyse, an engineer with the company, observed:

> "We have no intention of getting into the communications business, but we are going to be a landlord for communications companies. Our own business will remain that of an electric utility, with poles and wires. Because our relationship with communications providers will be entirely at arm's length, we foresee no affiliate transaction issues."

If this trend become the norm, many if not most of the affiliate transaction issues could become moot, as the utilities collect negotiated rents for using their facilities and free their BPL partners to market broadband service and manage retail broadband relationships. This idea also lends credence to the many electric companies that have clearly stated that they intend to continue to focus first and foremost on their electricity operations. Deployment is not extensive at this point, but no evidence has emerged to suggest that electric companies are profiting unfairly at ratepayers' expense. This will remain an issue that State policy makers will want to continue to monitor and, where appropriate, communicate clear expectations and policies.

Easements and Rights-of-Way

The Task Force did not hear much concern on behalf of providers or electric companies regarding problems with easements and rights-of-way, although all parties seem to agree that these remain fundamental issues—especially for new competitors entering local areas. Perhaps due to the fact that

almost all of the small-scale BPL deployments involve commercially-negotiated agreements, this issue has not been as controversial as it has become for competitors providing other types of broadband access.

EEI has suggested that local jurisdictions may see BPL as an opportunity to increase rights-of-way or franchise fees for electric service, even though there are no significant additional impacts on land use due to BPL deployment. According to EEI, because BPL piggybacks on existing electric wires and facilities, the argument that it should be free of additional or cumulative franchise or right-of-way obligations has some force. EEI suggests States consider establishing State-wide limits on additional fees and service regulations. Michigan's 2002 broadband law established standardized, limited, State-wide fees for all broadband providers that cannot be increased at the local level.[24] The Task Force plans further scrutiny of right-of-way issues going forward and may provide additional observations concerning possible best practices.

Pole Attachments

Many interested parties commented to the Task Force about pole attachments. The Task Force finds that this is yet another area where State commissions already have in place practices and procedures that should be adequate to address any disputes caused by a BPL deployment.[25]

By and large, if an electric utility provides pole access to affiliates, including a BPL provider, it must provide similar access to its utility poles to other requesters under uniform rates, terms, and conditions. Providing such access will carry with it costs that theoretically should be paid by those requesting access. Regulators must be careful to assure that these costs caused by a competitor's access are not paid by captive electric ratepayers.

Yet the issue of an attachment to an electric pole and the potential to affect crucial electricity service add a layer of sensitivity and complication perhaps greater than that with telecommunication and cable interconnections. Many commentators have noted that an electric utility's primary responsibility is safe, reliable, and efficient delivery of power. Attachment issues presented by the provisioning of BPL should in no way compromise a utility's delivery of electricity in any way. As Charles A. Zielinski, former chairman of the New York State Public Service Commission, recently stated:

> "Section 224 of the Communications Act protects this policy. It grants only a conditional right of access to an electric utility's 'poles, ducts, conduits, and rights-of-way' for the facilities of cable television systems and telecommunications service providers, which electric utilities historically have accommodated. It properly permits an electric utility to deny access 'where there is insufficient capacity and for reasons of safety, reliability and generally applicable engineering purposes.' It grants no right of access for the attachment of BPL facilities to an electric utility's distribution lines. Thus, BPL developers initially need to satisfy electric utilities and their regulators that BPL systems will not compromise the safety and reliability of electric power distribution.[26]

[24] *See* Mich. Comp. Laws § 484.3101 *et seq.*
[25] *See generally,* "Pole Attachments: White Paper by an Ad Hoc Group of the 706 Federal/State Joint Conference on Advanced Services" (NARUC July 2001).
[26] Charles A. Zielinski, "Barriers to Entry: The Fight Against Power-Line Communications," Public Utilities Fortnightly. December, 2004, pp. 19-20.

EEI has suggested that pole-attachment arrangements and fees should be the result of a market-based decision between willing buyers and sellers, further urging that pole attachment fee regulation should be avoided.

NEMA has asked whether the utilities should be able to charge non-approved rates for access, and has questioned whether or not there should be uniform pole attachment formulas.

Cinergy states that Ohio, like many other jurisdictions, already has in place pole-attachment (and conduit) fees to govern use of poles by phone and cable companies. Therefore, Current obtains pole attachments at tariffed rates, and on nondiscriminatory terms and conditions; obtains conduit and collocation space on the same terms CG&E make available to other requesters; and pays for power to run its BPL network devices at tariffed rates.

And the PLCA suggests that State regulators:

- Should require BPL affiliates providing telecom services to pay telecom pole attachment fees for installations outside the electric space; but
- Should NOT require BPL affiliates to pay pole attachment fees for installations inside the electric space.

The Task Force will continue to examine pole-attachment issues associated with BPL and the related topic of provider access, discussed below. The Task Force seeks to ensure that pole attachments are allowed where feasible and appropriate and that the commensurate rates do not become an undue barrier to entry for new BPL providers.

Provider Access

The broader concept implicated by the pole attachment issue is that of making reasonable access available in general to all who want it and are willing to pay for it. Put in a BPL context, the access question is whether any and every provider seeking to use an electric utility's wires for BPL-based communications service should be entitled to get it.

Many have touted BPL as the crucial third-wire option for what can be accurately described as a wireline duopoly in broadband. The other current players are Digital Subscriber Line service provided by local phone companies and cable-modem access. Many argue that existing wireless and satellite broadband technologies, because of their inherent price and technical limitations, do not provide significant competitive pressures in broadband service markets. But, *however the market is defined*, BPL clearly has the potential to significantly enhance competition for broadband services.

In theory, all technologies should be regulated equally, allowing a level playing field on which the various alternatives can compete fairly. Given that DSL and cable modem services are currently not subject to the same degree of regulatory oversight, it may not seem to matter which course is taken with BPL. But variations in the degree of regulation will always matters. The rules that apply will invariably impact the availability of a technology, the price and terms of service, and how well the technology competes.

Because it is a nascent technology, regulation of BPL could follow the hands-off regulatory approach currently applied to cable. At least in the near term, providers of BPL would not be obliged to provide nondiscriminatory access to their physical networks to competitors. This would level the playing field between cable and BPL, but still leave the incumbent telecommunications providers subject to the access related obligations imposed by federal regulation. The FCC's recent actions in

relieving incumbents from physical access requirements for "fiber to the premises" evidences a significant retreat from this federal policy. Overlapping the problems associated with those that want physical access to a carrier's facilities is effective customer access to providers of information services that are not affiliated with the BPL provider.

Some argue that an uneven playing field is acceptable, in that requiring open access is appropriate with existing sunk investment, but not for prospective investment by would-be competitors. Unfortunately, while this argument might apply to new broadband infrastructure, it is less applicable to an electric utility with existing distribution plant. An alternative approach, perhaps acceptable because new entrants need not completely build out new plant, would be to free all providers from open-access obligations. Obviously, such a course of action should not be taken without an examination of the impact of removing those obligations on customer choice. This appears to be one of the key issues facing Congressional leaders in the upcoming rewrite of the federal Telecommunications Act.

NEMA has argued for mandatory open access controlled by FERC jurisdiction. Regarding technology-based competition, the association asks:

- Will the fastest, best, and lowest cost provider to win?
- Are utilities the best innovators of Internet protocol technology?
- Can utilities maximize revenues by maximizing competition?
- Is there a limit to the number of competitors on one line?
- Can advanced technology increase the number of competitors?

EEI has stated that access to the electric system should be negotiated between willing participants:

- Electric utilities do not have market power over broadband services;
- BPL is a nascent technology which will currently not support multiple BPL technologies operating on the same distribution line;
- Mandatory access should not be required at the expense of the safety and reliability of the electric system;
- Attempts to impose mandatory access requirements, if successful, may conflict with utility plans to integrate BPL or other communications technology with their electric system operation;
- Mandatory access regulations would not apply to most co-ops and municipal utilities – excluding 25-30% of the population; and
- Mandatory access requirements would require burdensome regulatory action on terms and costs – and could lead to under-recovery of electric or BPL costs recovered from electric service customers.

Charles Zielinski has argued against open access requirements of government-mandated standardization constraints, such as standard nonproprietary protocols (e.g., TCP/IP):

> "...BPL platforms with proprietary protocols and designs different from those employed by cable and telephone companies may facilitate new applications, such as the automated load controls in which electric utilities are interested. Thus, if the policy goal is to encourage economic broadband transport platform entry, regulators should support flexible, creative designs, and should not mandate standardization.[27]

[27] Charles A. Zielinski, *supra*, p. 20.

Interestingly, unlike traditional telecommunications and electric competitors, most BPL providers at this stage of development are *not* requesting any form of open or mandatory access. The technology is nascent, they say, and unlike other advanced telecommunications services, multiple providers are simply not interested in the same pole at this time. For the moment, most also agree that the technology to accommodate multiple providers of BPL service, each maintaining their own adaptive equipment on a single set of electric wires, does not exist. As a practical matter, provider access appears to be a hypothetical issue for now, but one that regulators and the Task Force will need to watch. As referenced earlier, in addition to physical access, another important dimension of this issue is customer access to multiple internet service providers over the broadband network.

At this juncture, the Task Force is not inclined to address open access arguments further. The Task Force was particularly impressed with the sensitivity of electric pole space from a reliability standpoint. Furthermore, as the BPL providers point out, demand for access is not sufficient to engender a fuller discussion on the issue. Some members of the Task Force expressed concerns about foreclosing regulatory oversight of potentially anti-competitive behavior. At this stage of BPL's evolution, however, it appears that commercial negotiations are taking place in a competitively-neutral manner that satisfies the key BPL providers, as well as regulated electric utilities and their respective State regulators.

Licensing and Telephone Legacy Regulation

The most obvious additional obligation that could be imposed by regulators on BPL providers is a requirement to obtain regulatory permission prior to entering the BPL business. Traditional tools for regulating market entry include registration, licensure, or even the issuance of certificates of convenience and necessity. Conceivably, all of the same telecommunications considerations currently applicable to VoIP and Internet issues generally would apply to BPL. Theoretically, these range from no requirement by government for entry to full economic regulation by the government. The Task Force finds that entry requirements for broadband providers should be consistent across providers and should not depend on the underlying technology.

USF

Another regulatory concern affecting the deployment of BPL, and broadband services generally, is whether providers of BPL should pay into the federal Universal Service Fund (USF), and any similar State fund. Phone companies that pay into these funds argue that such an obligation puts them at a competitive disadvantage. Alternative point-to-point voice service providers using VoIP do not currently pay into these funds. They argue that relief from such an obligation is necessary to provide them a needed opportunity to gain a competitive foothold in the business. The issue is challenging. Among the factors to consider: (1) the degree to which requiring contributions to a State and/or federal USF imposes a barrier to entry for potential BPL providers; and (2) the fact that broadband service is not currently funded through the federal high-cost fund. Some argue that if and when broadband becomes eligible for such funding, then it may be an appropriate time to require BPL providers to contribute to a fund as they may also then be able to directly benefit from the program. In all probability, this issue will be one that the FCC and Congress closely examine in terms of the overall debate over the future of the USF.

VI. General Considerations and Conclusions

Looking ahead, John J. Joyce, President and CEO of Ambient Corporation, predicted:

> "2005 is shaping up to be a pivotal year for [power line communications (PLC) and BPL]. It will ultimately be the marketplace that will determine the success or failure of this technology. If the state regulatory environment encourages deployment of PLC/BPL in order to enhance utility operational capabilities, including better management of their assets, as well as supports new product offerings to utility customers, then significant commercial deployments in 2005 should be a reality."

The potential benefits of BPL are certainly manifest. From a reliability, systems operation, and competitive offering perspective, the technology appears promising. As in so many areas, the regulatory environment in general and BPL-related regulatory decisions will affect the degree of interest and motivation of electric utilities and BPL providers in deploying and advancing the technology. Regulatory uncertainty remains a concern for all involved.

In any sector of any industry, regulatory policy should be clearly defined, fair, and reasonably predictable. Investment, business, and consumer decisions are made based on informed estimates and projections. While perhaps impossible to have clearly defined rules and policies to satisfy all industry players and consumers, State commissions strive to do their part to determine complex and controversial issues in a manner that both facilitates technological advancement and protects the interests of core customers. Well deployed, BPL presents a unique opportunity to do both.

Over the coming year, the Task Force will continue to monitor progress in technology innovation, security/reliability concerns, and regulatory oversight. The Task Force recommends State commissioners take the time now to learn more about BPL technology. Policy makers will want to want monitor BPL to see whether and how it actually delivers on its many promises. States with BPL trials or small commercial deployments are encouraged to remain vigilant in their oversight of the offering and to share their observations with the Task Force. Prescribing an anticipatory form of regulation could presume that we can know how technologies and markets will evolve. Regulators also want to avoid favoring any technology over others and thereby distorting the market or impeding innovation. Absent any actual or imminent market failure or other threat to the public interest, however, oversight can be minimally intrusive. For BPL, the Task Force suggests a light-handed approach to regulation with a longer term focus on resolution of the regulatory issues cited above.

In 2005, the Task Force will remain engaged with industry stakeholders and customers, as we look to optimize the benefits of the technology for the public. The Task Force plans to continue to explore regulatory policy issues, as well as to spend more time in 2005 examining rural pilots. Specifically, we expect to:

(1) Continue to monitor the ongoing pilot programs and commercial deployments;
(2) Focus on emerging regulatory issues with an eye towards formulating a best practices guide for State regulators and providing updated surveys on State and industry activity;
(3) Scrutinize rural BPL deployments with a particular emphasis on any emerging technologies and circumstances that can facilitate rollout.

If you have surveys, white papers, studies, or technology overviews you believe may be of use to the Task Force in 2005, please send an e-mail to NARUC's General Counsel, Brad Ramsay at jramsay@naruc.org.

APPENDIX A

CHRONOLOGY OF BPL TASK FORCE ACTIVITIES

This appendix provides a brief chronology of the NARUC BPL Task Force's activities during 2004, with a focus on presentations made by experts and representatives of interest groups. (Unless otherwise noted, dates refer to meetings conducted by teleconference.)

January 26, 2004. **Brett Kilbourne**, Director of Regulatory Services and Associate Counsel for the **United PowerLine Council** (UPLC) made a presentation. (The UPLC is a trade group that represents utilities and providers interested in BPL.) Mr. Kilbourne provided an overview of BPL's deployment to date in the United States and identified relevant public policy and regulatory issues.

February 23. **Alan Stillwell**, Associate Chief, Office of Engineering and Technology, **Federal Communications Commission** (FCC), provided an update on the FCC's issuance of a notice of proposed rulemaking to add BPL-specific requirements to its existing Part 15 rules. **James Bradford Ramsay**, NARUC's General Counsel, provided a regulatory commentary on BPL.

March 15. **Allen Todd**, Director of Utilities for the **City of Manassas**, Virginia, described the city's pilot project and its decision to offer broadband service via BPL on a commercial basis to all of its municipal electric customers. He discussed the options electric utilities have for contracting out the provision of BPL service to other partners and explained that Manassas had opted for a "developer model;" *i.e.*, it installs the devices necessary to provide BPL service over its electric facilities, but contracts all aspects of the retail relationship with BPL customers to a partnering entity in exchange for a share of the revenues. He said that Manassas's business decision to deploy BPL rested on its enhancements to the operation of its electric system, e.g., improved capabilities for monitoring the location of outages, and that the revenues it collected from communications services were a side benefit.

Also on March 15, 2004, **Steve Greene**, Director of Utility Relations and Regulatory Affairs, **Amperion, Inc.**, and **Angel Cartagena, Jr.**, President of Cartagena & Associates, LLP, (and former Chairman of the District of Columbia Public Service Commission), made presentations. Mr. Greene provided an overview of the BPL industry in general and of Amperion's own activities. Mr. Cartagena summarized his article, "Broadband over Powerlines," Electric Perspectives (March/April 2004), which surveys the regulatory issues that BPL is likely to raise.

April 15. The presentations focused on the security implications of BPL. Presenters were **Erich W. Gunther**, Chairman and Chief Technology Officer of EnerNex Corporation, and **Jeff Pillon**, supervisor of the Energy Data, Security & Market Monitoring Section of the Michigan Public Service Commission's Competitive Energy Division. Mr. Gunther, an expert in security issues raised by new or emerging technologies, discussed BPL's security vulnerabilities and possible solutions. Mr. Pillon talked about BPL as an enabling technology for the intelligent grid that promises future enhanced capabilities.

April 29. **Jay Birnbaum**, Vice President & General Counsel, **Current Communications Group, LLC** (Current), provided an overview of Current's plans to deploy BPL, particularly in the area of Cincinnati, Ohio.

Each Task Force working subgroup began to draft its paper discussing its subject area (technology, security, and regulatory). In August of 2004, two of the papers were posted on NARUC's website (www.naruc.org).

July 13. At a General Session of NARUC's Summer Committee meetings in Salt Lake City, Utah, the Hon. **Laura Chappelle**, Task Force Chair, moderated a panel discussion on BPL, which the Hon. **Denise A. Bode**, another Task Force member, participated as a panelist. Lead presenters were the Hon. **Kathleen Q. Abernathy** of the **Federal Communications Commission** (FCC) and the Hon. **Nora Mead Brownell** of the **Federal Energy Regulatory Commission** (FERC), who provided a federal perspective supportive of the development of BPL. Commissioner Bode provided a technological perspective based on the work product of the Task Force's technology working group (for which much credit must go to Steve Wilt of the Oklahoma Corporation Commission Staff). Jay Birnbaum of Current and **Richard Keck**, an attorney with Troutman Sanders LLP, speaking as General Co-Counsel for the **Power Line Communications Association** (PLCA, a trade association of electric utilities interested in BPL deployment) represented the perspective of the BPL industry, advocating for regulatory policies that would promote deployment. **John Hewa**, Assistant Electric Director of the **City of Manassas**, provided a municipal utility's perspective.

July 29. **Howard Scarboro**, President and CEO, and **Gregory J. Kelly**, Member Services & Business Development Manager, both of **Central Virginia Electric Cooperative**, made a presentation describing their cooperative's introduction of BPL service. Their presentation was of interest in part because it spoke to the potential for BPL to provide service in rural areas. **Craig G. Goodman**, President of **National Energy Marketers Association** (NEMA), began a presentation regarding technological advances and innovations that promise to carry BPL beyond its current applications as a means of enhancing the provision of electric service.

August 23. Mr. Goodman completed his presentation that was truncated during the July 29, 2004 conference call. He urged the FERC to take a hard look at the jurisdictional issues posed by BPL. **Barry Goodstadt** of **WirthlinWorldwide**, a marketing research firm, and **Llew Davies** of **Davies Associates Incorporated**, a management consulting firm, detailed factors that would make a business case for investing in BPL deployment.

September 16. Presenters were **William J. Grealis**, Executive Vice President, **Cinergy Corp.**; **Gerald D. Wyse**, Manager of Distribution System Planning & Performance – West, **Consumers Energy Company** (Consumers); and Mike McGrath, Executive Director, Retail Energy Services, **Edison Electric Institute** (EEI). Mr. Grealis explained the business and regulatory thinking behind Cinergy's decision to form a partnership with Current to roll out broadband service to electric customers in the greater Cincinnati area. (To date, the Cinergy/Current partnership accounts for the single largest number of retail customers subscribing to BPL service.) Mr. Wyse explained Consumers' approach to partnering with a communications provider in starting a pilot program in a portion of its electric service territory encompassing Grand Ledge, Michigan. Mr. McGrath discussed EEI's concerns regarding regulatory policies that would provide incentives for its membership of investor-owned electric utilities to undertake BPL ventures.

October 24. The Task Force convened its only in-person meeting to date, in Arlington, Virginia, immediately prior to the NARUC/NECA National Summit on Broadband Deployment III. Commissioner Chappelle opened the meeting and introduced **Bruce Franca**, Deputy Chief of the FCC's Office of Engineering and Technology, and **David Tobenkin**, Attorney-Advisor of the FERC's Office of Market Oversight & Investigations, to provide a perspective on the FCC's Part 15 rulemaking decision and the joint FCC/FERC statement regarding BPL, both announced on October

14, 2004. NARUC's **Brad Ramsay** provided an overview of the regulatory approaches confronting the Task Force.

The Task Force also heard from a diverse array of panelists during its Arlington meeting. **Paul Rinaldo**, the Chief Technology Officer of the **American Radio Relay League** (ARRL), provided a cautionary note regarding radio frequency interference. He noted that those concerns go both ways: just as interference caused by BPL can impair other unlicensed uses of spectrum, e.g., ham radio, those uses can also interfere with BPL's functionality. Craig Goodman of NEMA urged the Task Force not to foreclose the possibility that BPL systems could, with technological advances, accommodate multiple broadband providers in an open access regime. The UPLC's Brett Kilbourne reminded the Task Force that the response of State regulators would be a critical determinant affecting whether BPL will become commercially successful. Richard Keck urged States to be pro-active in encouraging BPL and to ensure a level playing field for BPL to compete with other broadband technologies. EEI's Mike McGrath outlined utility industry recommendations dealing with safety and reliability, access to the electric system, cost allocation, affiliate transactions, and other issues. **Scott C. Cleland**, Chief Executive Officer of **The Precursor Group**, opined that BPL was at a "viability tipping point." He said that State regulators should not over regulate BPL or attempt to pick winners and losers. Thereafter, Commissioner Nelson conducted an interchange of views with the panelists, Task Force members, and others in the audience.

Coincident with the National Summit on Broadband Deployment, Jay Birnbaum of Current hosted several Task Force members and other State commissioners on a visit to Current's BPL demonstration site in Potomac, Maryland. The site is a residence that has been outfitted with BPL capabilities that provide an impressive array of broadband applications.

November 22. **James Guest**, the FERC's Chief Accountant, made a presentation outlining how the FERC's Uniform System of Accounts might affect accounting and cost allocation issues related to BPL.

December 15. **Robert J. Howley**, Regulatory Affairs, **Cox Communications, Inc.**, made a presentation on pole attachment issues. The Hon. **Alan R. Schriber**, Chairman of the Public Utilities Commission of Ohio, followed up with some observations about pole attachment issues related to the deployment of BPL in Cinergy's service territory in Cincinnati and resulting conflicts with other providers of broadband services in that area.

In late November and early December, Brad Ramsay of NARUC conducted a survey of State commissions regarding BPL developments. The results of that survey are attached to this report as Appendix **B**. During this timeframe, the Task Force also made arrangements with **Janice A. Beecher**, Director of the **Institute of Public Utilities, Michigan State University**, to provide proofing services for this paper. These contributions are gratefully acknowledged.

The Task Force also wishes to thank and acknowledge the efforts of numerous State commission staffers, both as valuable contributors to the Task Force's efforts to surmount the BPL learning curve and, in several cases, as contributors to this white paper. The following is a listing of those staffers:

State Commissioners Appointed to Task Force

- Laura Chappelle (MI)
- Thomas Dunleavy (NY)
- Julie Parsley (TX)
- Tony Clark (ND)

- Denise Bode (OK)
- Connie Hughes (NJ)

With assistance from:

- Robert Nelson (MI)
- Alan Schriber (OH)
- Charles Gray (NARUC)

Federal Commissioners that have participated in Task Force efforts

- FERC Commissioner Nora Brownell
- FCC Commissioner Kathleen Abernathy

Staff Support for the Task Force

- David Tobenkin (FERC)
- M. Henry (FERC)
- Rodger Woock (FCC)
- Jeffrey Pillon (MI)
- Kenneth M Roth (MI)
- Karen Feldpausch (MI)
- Illona Jeffcoat-Sacco (ND)
- Charlene Magstadt (ND)
- Dotti Leonard (NJ)
- Jane Kunka (NJ)
- Gary Walker (OK)
- Steve Wilt (OK)
- Joyce Davidson(OK)
- Joseph Witmer (PA)
- Don Jones (TX)
- Sheri Sanders (TX)
- Brad Ramsay (NARUC)
- Debra Scott (NARUC)

APPENDIX B

BROADBAND OVER POWERLINES (BPL)

-- State Survey Results --

February 2005

This short survey was conducted at the request of the NARUC Broadband over Power Lines (BPL) Task Force Chair, Commissioner Laura Chappelle of Michigan. The question was originally posed to State PUC/PSCs on November 19, 2004. The survey contains responses from all 50 States and the District of Columbia.

Responses: **(Listed alphabetically by State)**

QUERY FROM NARUC BPL TASK FORCE

State Commission	Contact Person	Are there any ongoing BPL trials or deployments?	* Location; * Municipality/City/State involvement (?) in trial; * Companies involved in trial; * Number of households involved in trial; * Services being offered/tested: (1) Local Phone Service; (2) Toll phone service; (3) Broadband Internet Access; (4) Auto Meter Reading; (5) Residential Demand Management/Smart Grid/Grid Management? (6) Other?	Does your State have any open proceedings that are examining BPL issues?	Has your state concluded any proceedings on BPL issues?
Alabama Public Service Commission	Gene Hanes, Energy Federal Affairs	Yes	Location: Hoover, Alabama; Municipality/City/State involvement (?) in trial: no; Companies involved in trial: Southern Telecom, Alabama Power Company; Number of households involved in trial: 115; Services being offered/tested: (1) Local Phone Service: not yet; (2) Toll phone service: not yet; (3) Broadband Internet Access: yes; (4) Auto Meter Reading: not yet; (5) Residential Demand Management/Smart Grid/Grid Management: not yet; (6) Other: not yet.	No previous or scheduled proceedings. While there may be other trials in Alabama, the only jurisdictional electric utility the APSC regulates is Alabama Power Company. The Commission has no authority or jurisdiction over municipals or cooperatives.	No
Regulatory Commission of Alaska	Lori Kenyon, Common Carrier Specialist	No	N/A	No	No
Arizona Corporation Commission	Del Smith, Utilities Division	Yes	Location: Cottonwood, Arizona; Municipality/City/State involvement: Cottonwood Town supports the trial. Companies involved in trial: APS, Mountain Telecommunications, Inc., and Mitsubishi. Number of households involved in trial: Ten. Services being offered/tested. (1) Local Phone service - Not yet; (2) Toll phone service - Not yet; (3) Broadband Internet Access - Yes; (4) Auto Meter Reading - Not yet; (5) Residential Demand Management/Smart Grid/Grid Management - Not yet; (6) Other - None.	N/A	N/A
Arkansas Public Service Commission	Arthur H. Stuenkel	No	N/A	No	No
California Public Utilities Commission	Mark A. Vandervelden, CPUC Division of Strategic Planning	No	N/A	N/A	N/A
Colorado Public Utilities Commission	Warren Wendling, Chief Professional Engineer	No	N/A	N/A	N/A

State Commission	Contact Person	Are there any ongoing BPL trials or deployments?	* Location; * Municipality/City/State involvement (?) in trial; * Companies involved in trial; * Number of households involved in trial; * Services being offered/tested: (1) Local Phone Service; (2) Toll phone service; (3) Broadband Internet Access; (4) Auto Meter Reading; (5) Residential Demand Management/Smart Grid/Grid Management? (6) Other?	Does your State have any open proceedings that are examining BPL issues?	Has your state concluded any proceedings on BPL issues?
Connecticut Department of Public Utility Control	Peter Pescosolido	No	N/A	No	No
Delaware Public Service Commission	Constance A. Welde	No	N/A	No	No
District of Columbia Public Service Commission	Ellen Brown	No	N/A	We have opened a proceeding - F.C. No. 1021. That proceeding has not been concluded.	No
Florida Public Service Commission	Rick Moses	Yes	Information received for an August 2004 survey response indicated that Florida Power and Light had a small pilot of 25 connections in the FPL system and planned to add 25 more. There was no charge to customers. Gulf Power reported a trial in Birmingham, Alabama, with less than 200 customers. Progress Energy Florida had a trial in North Carolina where Earthlink Service was offered to 400 customers in Raleigh.	No	No
Georgia Public Service Commission	Leon Bowles, Unit Director, Telecommunications	No	N/A	No	No
Hawaii Public Utilities Commission	Lisa Y. Kikuta, Chief Researcher	Yes	Location: McCully neighborhood of Honolulu, Hawaii; Municipality/City/State involvement: No; Companies involved: Hawaiian Electric Company and Current Technologies (BPL vendor); Number households involved: Four; Services being offered/tested: Testing VoIP, broadband internet, utility applications (see below) (1) Local phone service: Yes (2) Toll phone service: Yes (3) Broadband Internet Access? Yes (4) Auto Meter reading? Yes, testing an IP addressable meter. (5) Residential Demand Management/Smart Grid/Grid Management? No, working with vendor to develop load management switch. (6) Other: Testing utility applications at distribution substation - monitoring current, temperature and voltage measurements/readings, and power quality.	No	No
Idaho Public Utilities Commission	Wayne Hart	Idacomm, a sister company of Idaho Power, the largest IOU in the state, has conducted limited trials at employee residences, and is currently conducting limited technology trials in two subdivisions.	Location: Boise; Municipality/City/State involvement (?) in trial: No; Companies involved in trial: Idacomm; Number of households involved in trial: There were approximately 50 households participating in the trials at the end of 2004. More are expected as the subdivisions build out; Services being offered/tested: (1) Local Phone Service; (2) Toll phone service; (3) Broadband Internet Access; (4) Auto Meter Reading; (5) Residential Demand Management/Smart Grid/Grid Management? (6) Other? At this stage of the tests, only high speed internet services are being provided.	No	No

State Commission	Contact Person	Are there any ongoing BPL trials or deployments?	* Location; * Municipality/City/State involvement (?) in trial; * Companies involved in trial; * Number of households involved in trial; * Services being offered/tested: (1) Local Phone Service; (2) Toll phone service; (3) Broadband Internet Access; (4) Auto Meter Reading; (5) Residential Demand Management/Smart Grid/Grid Management? (6) Other?	Does your State have any open proceedings that are examining BPL issues?	Has your state concluded any proceedings on BPL issues?
Illinois Commerce Commission	Bud Green, Chief Telecom Engineer	No	N/A	No	No
Indiana Utility Regulatory Commission	Joel Fishkin, Assistant. Director, Telecommunications Division	Yes	Location: South-Central Indiana, more specifically, Martinsville, IN; Municipality/City/State involvement: No Companies involved in trial: South- Central Indiana REMC and International Broadband Electric Communications, Inc. Number of households: 1,100. Services being offered/tested: Local phone service - No; Toll phone service - No; Broadband Internet Access - Yes Auto Meter Reading - No Residential Demand Management/Smart Grid/Grid Management - No Other - Outdoor cameras.	No, but we had a workshop.	No
Iowa Utilities Board	John Ridgway, Manager - Telecom	No	No	No	No
Kansas Corporation Commission	Guy McDonald, KCC Staff, Senior Telecommunications Analyst	No	No	No	No
Kentucky Public Service Commission	Jim Stevens, CPA, Telecommunications Revenue Requirements Branch	No	N/A	No	No
Louisiana Public Service Commission	Eve Kahao Gonzalez, General Counsel	No	N/A	No	No
Maine Public Utilities Commission	Phillip Lindley, Utilities Analyst	No BPL activity in Maine. We are aware of contacts between a BPL supplier (Main.net Communications, of Reston, VA) and one of our small municipal electric utilities, but no trials are planned as of yet.	N/A	No	No
Maryland Public Service Commission	Carlos Candelario, Assistant Director, Telecommunications	Yes	There is an ongoing trial in Potomac, Maryland. It involves the private firm called Current Technologies, which is using PEPCO facilities for the purposes of transmission. There is no government involvement at any level. There are 100 residential customers involved and the two services being trialed are internet services and auto meter reading.	There are no open proceedings or proceedings that have been concluded on BPL issues in the State.	No

State Commission	Contact Person	Are there any ongoing BPL trials or deployments?	* Location; * Municipality/City/State involvement (?) in trial; * Companies involved in trial; * Number of households involved in trial; * Services being offered/tested: (1) Local Phone Service; (2) Toll phone service; (3) Broadband Internet Access; (4) Auto Meter Reading; (5) Residential Demand Management/Smart Grid/Grid Management? (6) Other?	Does your State have any open proceedings that are examining BPL issues?	Has your state concluded any proceedings on BPL issues?
Massachusetts Department of Telecommunications and Energy	Ashish Shrestha, Analyst, Telecom Division. & Energy	Yes, trial.	Agawam, MA. Municipality/City State involvement: None. Companies involved in trial: Western Massachusetts Electric Co. is starting up a 25-home trial in Agawam of a hybrid system that carries Net traffic on medium-voltage lines and uses wireless gear for the last-mile connection to homes. Services being offered/tested. (1) Local phone service - No (2) Toll phone service - No (3) Broadband Internet Access - Free high-speed internet access. (4) Auto Meter Reading - the electric company is also exploring using the connections to link its own equipment, including residential meters, to the Internet. This would allow for remote reading of meters or equipment that measures current flow. (5) Residential Demand Management/Smart Grid/Grid Management? See below. (6) Other? The utility could install "smart streetlights" that send a message via the Internet when their lamps burn out. An electric grid with more monitoring devices linked to the utility's operations center could give warning of outages before they occur, officials said.	No	No
Michigan Public Service Commission	Laura Chappelle, Commissioner	Yes	Consumers Energy Company and the Shpigler Group are implementing a pilot project for BPL in Grand Ledge, Michigan in the Spring of 2005.	No	No
Minnesota Public Utilities Commission	Diane Wells	No	N/A	No. Additional Information: Rochester Public Utilities is doing a trial of BPL.	No
Mississippi Public Service Commission	Patricia Trantham	No	N/A	N/A	N/A
Missouri Public Service Commission	Natelle Dietrich: Regulatory Economist III	Yes	Location: Cape Girardeau, Missouri. Municipality/City State involvement: None known. Companies involved in trial: Ameren Union Electric. Ameren has a trial program in this area. Specific details are unknown.	No	No
Montana Public Service Commission	Mike Lee	No	N/A	No	No
Nebraska Public Service Commission	Gene Hand	No	N/A	None. There is proposed legislation (LB 136) titled the "Public Power Infrastructure Act" that centers on the difference between information service and telecommunications service including establishing that the governing body of the public power supplier will be the sole regulator.	No

State Commission	Contact Person	Are there any ongoing BPL trials or deployments?	* Location; * Municipality/City/State involvement (?) in trial; * Companies involved in trial; * Number of households involved in trial; * Services being offered/tested: (1) Local Phone Service; (2) Toll phone service; (3) Broadband Internet Access; (4) Auto Meter Reading; (5) Residential Demand Management/Smart Grid/Grid Management? (6) Other?	Does your State have any open proceedings that are examining BPL issues?	Has your state concluded any proceedings on BPL issues?
Nevada Public Utilities Commission	Charlie Bolle, Manager, Policy Analysis	No	N/A	No	No
New Hampshire Public Utilities Commission	Jody O'Marra, Utility Analyst, III	No	No	No	No
New Jersey Board of Public Utilities	Robert Melendez, Issues Manager, Telecom	No	N/A	No	No
New Mexico Public Regulation Comm.	Michael Ripperger; Telecommunications Bur. Chief	No	N/A	No	No
New York State Public Service Commission	Steven Sokal, Office of Economic Development and Policy Coordination	Yes	Location: (1) Briarcliff Manor, New York project deployed service to two households and involves the Ossining Police Department, Consolidated Edison of New York, Ambient Corporation, and Earthlink. Services being offered/tested: Broadband Internet access, automated meter reading, and other enhanced electric service applications, including substation SCADA control and video surveillance telemetry. (2) Solvay, New York project involves the Village of Solvay Electric Department, New Visions PLC, and Main.net PLC. Services include broadband Internet access.	No	No

State Commission	Contact Person	Are there any ongoing BPL trials or deployments?	* Location; * Municipality/City/State involvement (?) in trial; * Companies involved in trial; * Number of households involved in trial; * Services being offered/tested: (1) Local Phone Service; (2) Toll phone service; (3) Broadband Internet Access; (4) Auto Meter Reading; (5) Residential Demand Management/Smart Grid/Grid Management? (6) Other?	Does your State have any open proceedings that are examining BPL issues?	Has your state concluded any proceedings on BPL issues?
North Carolina Utilities Commission	Teresa Kelly	Yes Duke Power is in the final stages of evaluating its market trial with AT&T Corp., Earthlink Inc., and LecStar Telecom Inc. to provide high-speed Internet to about 100 Charlotte residents for six months. Out of their options is to become a wholesale network provider for existing internet providers, such as EarthLink, Microsoft, and AT&T.	Progress Energy completed its market trial in August 2004 to provide broadband service to about 400 Wake County homes for six months. Currently, the company does not have plans for a large-scale commercial rollout of BPL in the company's service territories. Integrated communications provider Fonix Telecom is partnering through its subsidiary, LecStar Telecom, with Duke Power to expand on ongoing test of broadband over power line (BPL) technology and market acceptance. The trial, which will be expanded to 10,000 to 15,000 homes in North Carolina and South Carolina, represents an expansion of a 500-home trial currently being conducted by the companies. The trial's specific locations will be determined in the first quarter of 2005, and the companies expect service to be available to businesses and consumers in some markets in mid-2005. As part of the BPL trials, Fonix also is continuing to test Voice over IP via BPL. This service will be tested by current trial participants and is expected to become available to all customers in the next phase of the trial by mid-2005.	No	No
North Dakota Public Service Commission	Tony Clark, Commissioner	No	N/A	No	No
Ohio Public Utilities Commission (PUCO)	Alan Schriber	Yes	We have a major BPL program underway in Ohio, specifically in Cincinnati. Cinergy is deploying BPL in certain neighborhoods and is beginning to spread out. They had a successful pilot program earlier. I have visited with Current Technologies, which is doing the "business side" of the BPL and have seen their demo house in Maryland. They now have a demo facility in Cincinnati.	Wars are brewing in Cincinnati between Time Warner, Cinergy, and to a lesser extent, Cincinnati Bell. The big fight is over pole attachments.	No
Ohio Commission	Cheryl Williams, Chris Kotting	Yes, one trial and one trial that has progressed into a deployment. AEP/Amperion (trial) and Cinergy/Current Communications (deployment in progress).	Location: Cinergy's Electric service territory (Cincinnati Area); AEP Facilities in Dublin, Ohio. Also, small REC's and Municipal co-ops (just started). AEP/Amperion: N/A Municipality/City/State involvement: Under Cinergy/Current, only to the extent that Municipal electric operations buy into the product. None have thus far, although some are considering it. Under AEP/Amperion: None. Companies involved in trial: Under Cinergy/Current: Cinergy/Current Communications. Under AEP/Amperion: AEP/Ohio Power, and Amperion. Number of households involved in trial: Under Cinergy/Current, 100 in trial, deployment customer counts unknown at this time. Under AEP/Amperion, None (At this time, the trial is limited to AEP's own facilities). Services being offered/tested: (1) Local phone service; No for Cinergy/Current; No for AEP/Amperion. (2) Toll phone service: No for Cinergy/Current; No for AEP/Amperion. (3) Broadband Internet Access: Yes for Cinergy/Current; Yes for AEP/Amperion. (4) Auto Meter Reading? Testing, for Cinergy/Current; Testing, for AEP/Amperion. (5) Residential Demand Management/Smart Grid/Grid Mgmt: Testing, for Cinergy/Current; Testing, for AEP/Amperion. (6) Other: Unknown, for Cinergy/Current; Unknown for AEP/Amperion.	No	No
Oklahoma Public Utility Commission	Steve Will, Public Utility Regulatory Analyst – Telecom.	No	No	No	No

State Commission	Contact Person	Are there any ongoing BPL trials or deployments?	* Location; * Municipality/City/State involvement (?) in trial; * Companies involved in trial; * Number of households involved in trial; * Services being offered/tested: (1) Local Phone Service; (2) Toll phone service; (3) Broadband Internet Access; (4) Auto Meter Reading; (5) Residential Demand Management/Smart Grid/Grid Management? (6) Other?	Does your State have any open proceedings that are examining BPL issues?	Has your state concluded any proceedings on BPL issues?
Oregon Public Utilities Commission	Rick Carter, MIEEE, Senior Telecommunications Engineer	No. Currently there are no trial deployments, or network construction of this technology in the State. There is some interest in the technology for use by electric companies for the purpose of Auto Meter Reading (AMR). There is one operator, which serves a sliver of the Eastern Oregon border area near Idaho, who has recently completed a trial deployment in Meridian, Idaho, west of Boise. The Company is IDAComm, which is an affiliate of IDACorp, which also owns Idaho Power. I have talked with the operators of a BPL system in Sault Ste. Marie, Canada, regarding their trial deployment, and several conversations with technical representatives at Amperion, who manufacture equipment for BPL. These discussions took place to help develop a presentation for informing Commissioners of the nascent technology.	N/A	No	No
Pennsylvania Public Utilities Commission	Joseph Witmer	Pennsylvania experience. PPL Telecomm (a subsidiary of PPL Corporation, a major provider of electricity in Eastern and Central Pennsylvania to approximately 1.3 million customers) has been involved with BPL since 1999. PPL originally used Main.net technology supplied by Amperion, Inc., in an experiment in Whitehall, PA, that passed approximately 2,500 homes. PPL estimates that of the approximately 375,000 customers evaluated for potential BPL service, more than two-thirds do not have access to equivalent two-way broadband service. PPL has not yet made a final decision on a full scale deployment.	Pennsylvania involvement at FCC. Pennsylvania was one of two states that submitted comments in the recently concluded BPL docket. The PaPUC suggested that (a) an ancillar NOPR was needed to address non-technical issues, such as universal service and the role of the states; (b) the final regulations should not apply for 36 months to entities deploying BPL as of the date of enactment, unless there is evidence establishing an inability to solve technical issues absent application of any final BPL rules; (c) the spectrum be divided into "notched" or exempt sections (primarily for Verizon, Spring, Boeing, ARR, CSAA, NAS-RAS, and NCTA) and non-notched (non-exempt) sections (primarily all other spectrum); (d) BPL equipment should incorporate state-of-the-art power reduction, frequency modulation, and shut-off devices to mitigate any potential interference; (e) the FCC should create a BPL Engineering Task Force modelled on the Internet Engineering Task Force; (f) procedures should be developed for posting information about BPL in the respective states; and (g) state commission should have the option of "opting in" to be a first-cut mediator for any alleged interference from BPL to customers or entities using spectrum that experiences interference from BPL.	N/A	N/A
Rhode Island Public Utilities Commission	Stephen Scialabba, Chief Accountant	No	N/A	No	No
South Carolina Public Service Commission	Douglas Pratt	No	N/A	No	No

State Commission	Contact Person	Are there any ongoing BPL trials or deployments?	* Location; * Municipality/City/State involvement (?) in trial; * Companies involved in trial; * Number of households involved in trial; * Services being offered/tested: (1) Local Phone Service; (2) Toll phone service; (3) Broadband Internet Access; (4) Auto Meter Reading; (5) Residential Demand Management/Smart Grid/Grid Management? (6) Other?	Does your State have any open proceedings that are examining BPL issues?	Has your state concluded any proceedings on BPL issues?
South Dakota Public Utilities Commission	Bob Sahr, Commissioner	No	N/A	No	No
Tennessee Regulatory Authority	Darlene Standley, Chief of Utilities	Yes	Location: Fayetteville, Tennessee. Municipality/City/State involvement: Yes Companies involved in trial: Fayetteville Public Utilities & GridStream TechnologYes Number of households involved: this trial is no longer active, two approximately three businesses still have modems that are active. Services being offered/tested: (1) Local hone service - No; (2) Toll phone service - No; (3) Broadband Internet Access - Yes; (4) Auto Meter Reading - No; (5) Residential Demand Management/Smart Grid/Grid Management - No; (6) Other - No	No	No
Texas Public Utility Commission	Sheri Sanders, Attorney, Policy Development Division	Yes. Broadband Horizons (BH) is the first company to launch BPL in Central Texas. Initial installations began in June 2004. Its offices are based out of Blanco, Texas. Additional information about their services may be found at http://www.broadbandhorizons.com/index.htm. Additionally, in summer of 2004, TXU Electric Delivery hosted a small-scale BPL retail demonstration project in Irving, Texas, providing five homes with Internet service to test the technical feasibility of BPL. Utility applications were not tested. The vendor withdrew interest. Larger scale commercial deployment is being considered, and TXU is interviewing suppliers, technology partners, and retail ISP providers.	Location: Broadband Horizons' home office is located in Blanco, Texas. It currently has pilot projects in Burnet, Weimar and Blanco, Texas. BH is initially targeting rural and semi-rural communities, generally under 20,000-30,000 population. Municipality/City/State involvement. The City of Blanco is served by Perdenales Electric Cooperative, a private electric utility owned by its customers. The City of Burnet owns its own electric utility. The City of Weimar is served by the Fayette Electric Cooperative, District 6. The current contracts are for limited projects for 90 to 180 days. For the pilot projects, there will be no cost to the municipal utility districts. Companies involved in Trial: Broadband Horizons and its ISP, Momentum Online. Number of households involved in trial: The initial pilots are limited in size, and the company reports approximately 25 users on the system, mostly in Weimar, TX. In Burnet, BH provides BPL broadband service to a municipal building and a nearby commercial building. Services being offered/tested: (1) Local phone service - Unknown; (2) Toll phone service - Unknown; (3) Broadband Internet Access - Yes. (4) Auto Meter Reading - Unknown. (5) Residential Demand Management/Smart Grid/Grid Management - Unknown. (6) Other - None.	No	No
Utah Public Service Commission	Peggy Egbert, Technical Consultant, Telecommunications	No	N/A	No	No
Vermont Public Service Board	Peter Bluhm	No	N/A	No	No

State Commission	Contact Person	Are there any ongoing BPL trials or deployments?	* Location; * Municipality/City/State involvement (?) in trial; * Companies involved in trial; * Number of households involved in trial; * Services being offered/tested: (1) Local Phone Service; (2) Toll phone service; (3) Broadband Internet Access; (4) Auto Meter Reading; (5) Residential Demand Management/Smart Grid/Grid Management? (6) Other?	Does your State have any open proceedings that are examining BPL issues?	Has your state concluded any proceedings on BPL issues?
Virginia State Corporation Commission	Steven Bradley, Deputy Director, Division of Communications, or John D. Hewa, Assistant Director Electric Utility, City of Manassas, VA	Yes. Manassas, Virginia was conducting a trial of internet access over BPL. It affected only a handful of customers. As I recall, it was limited to just internet access. I believe that Manassas operates its own municipal electrical service.	1 - Location: City of Manassas, Virginia; Municipal Involvement: Yes; City government involved, specifically the Electric Department; In Trial. No, commercial deployment stage; Number of Households. more than 200 subscribers with over nearly 3,000 homes passed; Services: business and residential internet services, VOIP operational testing at multiple sites; Broadband Access: $28.95 per month for residential with no installation fee and no long term contract; automatic meter reading operational for demonstration purposes, video cameras operational over BPL at electric substations and other sites operating coordinated traffic signals with system, plan to expand Approximate City population 12,500 residences and 2,500 businesses totaling 36,000 people. 2 – Location. International Broadband Electric Communications, Inc. (IBEC, Inc.) of Huntsville, Alabama, is conducting a market pilot of two circuits of the CVEC Colleen Substation located south of Lovingston, Virginia; Municipal Involvement: None to date; Companies involved in trial: IBEC, Inc.; Number of households involved in trial: 64 total users; Services being offered/tested: (1) Local Phone Service – no; (2) Toll phone service – no; (3) Broadband Internet Access – yes; (4) Auto Meter Reading – no; Residential Demand Management – no; Other – no.	No	No
Washington Utilities and Transportation Commission	Bob Williamson, Sr., Technical Staff	Yes, two trials are in progress by Chelan County PUD in rural Eastern Washington State.	One trial is located in Wenatchee Heights, a housing development of approx. 35 homes using capacitive coupling, HPA (Home Plug Alliance) protocol BPL equipment provided by Gridstream. Started in May of 2004 this trial has never fully functional. A total equipment redesign will be completed and the trial will restart early 1st Q 2005. The second trial is in the Peshastin area and connects approx. 30 homes using induction coupling BPL equipment from MainNet providing 500-700Kb of bandwidth. The trial is functional and in use by two customers at this time. Ham radio organizations have assisted in radio interference testing at both locations. using capacity coupled, HPA (Home Plug Alliance) protocol BPA equipment provided by GridStream. Gridstream. Started in May 2004 this trial has never been fully functional. A total equipment redesign ha been completed and the trial is set to begin again the first quarter of 2005. The second trial is in the Peshastin area connecting approx. 30 homes using inductive coupled, proprietary protocol BPL equipment proprietary protocol, BPL equipment provided by MainNet. Fully functional since its inception in September of 2004, this system provides 500-700 Kb of broadband data bandwidth per subscriber. Ham radio operators have assisted with radio interference testing at both locations.		
West Virginia Public Service Commission	Dannie Walker, Technical Analyst	No. American Electric Power was approached by a BPL company in either 2003 or 2004; however, the power company decided against a trial with them because of the repair response times that the BPL company demanded	N/A	No	No

State Commission	Contact Person	Are there any ongoing BPL trials or deployments?	* Location; * Municipality/City/State involvement (?) in trial; * Companies involved in trial; * Number of households involved in trial; * Services being offered/tested: (1) Local Phone Service; (2) Toll phone service; (3) Broadband Internet Access; (4) Auto Meter Reading; (5) Residential Demand Management/Smart Grid/Grid Management? (6) Other?	Does your State have any open proceedings that are examining BPL issues?	Has your state concluded any proceedings on BPL issues?
Wisconsin Public Service Commission	Scot Cullen Chief Engineer Energy Division	No	N/A	No	No
Wyoming Public Service Commission	Mike Korber, Lead Rate Analyst	No	N/A	No	No

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May 17, 2005

The Honorable Cliff Stearns
Congress of the United States
2125 Rayburn House Office Building
Washington, D.C. 20515

RE: Subcommittee on Telecommunications and the Internet: "How Internet Protocol-Enabled Services are Changing the Face of Communications: A View from Government Officials."

Dear Congressman Stearns:

Chairman Upton forwarded your question to me for response. Your question was:

> "The state of Florida may soon come to a compromise solution between the telecom industry and local government, setting up a public process where a local government first clearly states the level of communications service it wants for its community. It then seeks the service from private providers. If no private providers offer the service at the level requested, then the local government can offer the service itself. It is hoped that this compromise will help ensure that communities will receive the communications services they desire, either first from a private provider or second, from a public one. I understand that you don't have the details in front of you, but from the general principles I've outlined, do you think that this might provide some sort of framework for a national model in regard to the issues we are talking about today?"

For purposes of my response, I am going to assume the phrase "communications service" includes wireline, wireless, and broadband, and encompasses voice, data and video.

8380 Colesville Road, Suite 101 Silver Spring, MD 20910

It is my opinion that it would be unwise to adopt any national legislation attempting to directly empower political subdivisions of a state to compete in the communications market or, for that matter, to attempt to restrict how those subdivisions might compete, without regard to that state's will. Congress must recognize the states' fundamental right to determine the types of services and goods the state and its local governmental subdivisions may provide in competition with private enterprise, including communications services. I don't believe Congress should enact legislation that would diminish that right.

That policy decision involves a careful balancing of the state's duty to ensure needed services and goods are provided to its citizens without unduly interfering with the commercial rights of private enterprise that is able and ready to provide those services at some level acceptable to the state. Where that balance point falls will differ among states, based on each state's perception of the public good of its citizens and private enterprises' ability to reasonably fulfill that public good in that state. Economic decisions by private enterprise in that regard will depend on a host of factors unique to each state, such as taxation, regulations and the like.

In fact, the United States Supreme Court recently held that the Telecommunications Act of 1996 did not preempt states from prohibiting their local governments from entering into the telecommunications business. *Nixon v. Missouri Municipal League, et al.*, 541 U.S. 125, 124 S.Ct. 1555, 158 L.Ed.2d 291 (2004). A provision of the Act, 47 U.S.C. § 253, preempts state and local governments from prohibiting "any entity" from providing telecommunications services. Missouri passed a statute prohibiting its political subdivisions from providing telecommunications services. In responding to a challenge to the statute, Justice Souter, speaking for the majority, stated Congress could not have intended that the phrase "any entity" include political subdivisions. He pointed out that Congressional preemption of a state ban on government utilities would be ineffective if the state was still left with the power to refuse to fund such an enterprise. 541 U.S. at 134. He concluded by stating: "That is why preempting state or local governmental self-regulation (or regulation of political inferiors) would work so differently from preempting regulation of private players that *we think it highly unlikely that Congress intended to set off on such uncertain adventures*." 541 U.S. at 134. (Emphasis supplied).

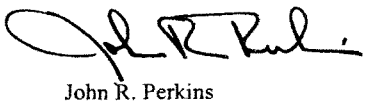
I would encourage Congress not to enact legislation that would directly interfere with the right of states to determine the extent to which the state's political subdivisions are allowed to enter any field of commerce, including communications services. The fact many of the industry players have a national presence in wireline, wireless and broadband communications should have no impact on the issue of which level of government ought to be able to set policies regarding the presence of private enterprise in a particular state. Many national companies must comply with numerous statutes of fifty different states. It is simply a cost of doing business at a national level. That fundamental decision should remain with each state.

That said, I do believe Congress has a role in helping ensure that basic communications services are made available to every citizen of the United States at a reasonable rate. The Universal Service Fund is one example of how Congress has attempted to accomplish that concept at a national level by helping fund private telecommunication enterprise in areas where it might not be economically feasible. I understand a Congressional committee is currently holding hearings on how to address USF issues in this new era of telecommunications in order to account for the increasing use of wireless and broadband. If an individual state decided not to allow its political subdivisions to provide communication services, Congressional assistance in this manner for communities where it is not economically feasible for private enterprise to enter would be appropriate and help spur development of these services.

I don't believe direct preemption of state statutes in favor of a national model along the lines that you have described the state of Florida as considering, would be appropriate. For Florida, that model might be appropriate. For other states, it might not.

Thank you for soliciting my opinion on this matter. My presence before the subcommittee was very enlightening for me. I hope it was for the committee members as well.

Sincerely yours,



John R. Perkins
Consumer Advocate of Iowa
President, National Association of State
Utility Consumer Advocates

NATIONAL
GOVERNORS
ASSOCIATION

Mark R. Warner
Governor of Virginia
Chairman

Mike Huckabee
Governor of Arkansas
Vice Chairman

Raymond C. Scheppach
Executive Director

May 27, 2005

The Honorable Cliff Stearns
Committee on Energy and Commerce
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515-6115

Dear Congressman Stearns:

Thank you for your question regarding Florida's proposed compromise between the telecom industry and local governments regarding the provision of communications services by a municipality. Your question and my response on behalf of the National Governors Association are provided below.

Please do not hesitate to contact me with any additional questions.

Sincerely,

David C. Quam

David C. Quam
Director, Office of Federal Relations
National Governors Association

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The Honorable Cliff Stearns
May 27, 2005
Page 2

Question: From the Honorable Cliff Stearns

The state of Florida may soon come to a compromise solution between the telecom industry and local government, setting up a public process where a local government first clearly states the level of communications service it wants for its community. It then seeks the service from private providers. If no private providers offer the service at the level requested, then the local government can offer the service itself. It is hoped that this compromise will help ensure that communities will receive the communications services they desire, either first from a private provider or second, from a public one. I understand that you don't have the details in front of you, but from the general principles I've outlined, do you think that this might provide some sort of framework for a national model in regard to the issues we are talking about today?

Response:

The National Governors Association has not taken a position on whether or under what conditions local government should offer communications services. Governors are supportive of the rapid development, deployment, and availability of advanced communications services, such as broadband, to all citizens. How this goal is reached, however, is a decision best left to elected officials in each state. The approach cited by Congressman Stearns may be an appropriate and workable solution for Florida, and should be made available to other states, but the market forces that apply to the deployment of communications services vary nationally and would benefit from state specific solutions that respond to the unique market pressures in that state. Consequently, governors would prefer a federal policy that promotes the expansion of communications services while allowing elected officials in each state the flexibility to determine the statutory framework that works best for their state's citizens.

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May 27, 2005

The Honorable Cliff Stearns
Attn: David Hickey
U.S. House of Representatives
Committee on Energy and Commerce
Washington, D.C. 20315-6155

Via electronic mail

Dear Congressman Stearns:

Recently, I was a witness at the hearing entitled "How Internet Protocol-Enabled Services are Changing the Face of Communications: A View from Government Officials," held before the Subcommittee on Telecommunications and the Internet on April 27, 2005. My testimony was exclusively devoted to a discussion of the need for access to new Internet-enabled services by people with disabilities, and did not address state or local government rights, other than to suggest that these local jurisdictions should be permitted to continue regulating telecommunications relay services for people who are deaf, hard of hearing or speech disabled. Because my testimony did not focus on the ability of local governments to offer their own telecommunications services, and because I am not a governmental official, the follow-up question posed by the Honorable Cliff Stearns on or around May 13, 2005, is beyond the scope of my testimony; nor do I feel qualified to offer a response. Accordingly, I do not request that any additional information from me be added to the hearing record on this matter. The question presented was as follows:

> The state of Florida may soon come to a compromise solution between the telecom industry and local government, setting up a public process where a local government first clearly states the level of communications service it wants for its community. It then seeks the service from private providers. If no private providers offer the service at the level requested, then the local government can offer the service itself. It is hoped that this compromise will help ensure that communities will receive the communications services they desire, either first from a private provider or second, from a public one. I understand that you don't have the details in front of you, but from the general principles I've outlined, do you think that this might provide some sort of framework for a national model in regard to the issues we are talking about today?

Thank you for giving me this opportunity to provide my input. I would be happy to respond to any questions you might have regarding disability access to telecommunications services.

Sincerely,

Karen Peltz Strauss

Karen Peltz Strauss
Witness for
Alliance for Public Technology
Communications Service for the Deaf

○