FEDERAL TELECOMMUNICATIONS LAW:

A LEGISLATIVE HISTORY OF

THE TELECOMMUNICATIONS ACT OF 1996

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INCLUDING

THE COMMUNICATIONS DECENCY ACT

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BY

BERNARD D. REAMS, JR.
ASSOCIATE DEAN AND PROFESSOR OF LAW
ST. JOHN'S UNIVERSITY IN NEW YORK

AND

WILLIAM H. MANZ
EXECUTIVE LAW LIBRARIAN
ST. JOHN'S UNIVERSITY IN NEW YORK

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INTRODUCTION

AN OVERVIEW OF THE TELECOMMUNICATIONS ACT OF 1996

The "Telecommunications Act of 1996," signed into law on February 8, 1996, opens up competition between local telephone companies, long-distance providers, and cable companies; expands the reach of advanced telecommunications services to schools, libraries, and hospitals; and requires the use of the new V-chip technology to enable families to exercise greater control over the television programming that comes into their homes. This Act lays the foundation for the investment and development that will ultimately create a national information superhighway to serve both the private sector and the public interest.

President Clinton noted that the Act will continue the efforts of his administration in ensuring that the American public has access to many different sources of news and information in their communities. The Act increases, from 25 to 35 percent, the cap on the national audience that television stations owned by one person or entity can reach. This cap will prevent a single broadcast group owner from dominating the national media market.

Rates for cable programming services and equipment used solely to receive such services will, in general, be deregulated in about three years. Cable rates will be deregulated more quickly in communities where a phone company offers programming to a comparable number of households, providing effective competition to the cable operator. In such circumstances, consumers will be protected from price hikes because the cable system faces real competition.

This Act also makes it possible for the regional Bell companies to offer long-distance service, provided that, in the judgment of the Federal Communications Commission (FCC), they have opened up their local networks to competitors such as long-distance companies, cable operators, and others. In order to protect the public, the FCC must evaluate any application for entry into the long-distance business in light of its public interest test, which gives the FCC discretion to consider a broad range of issues, such as the adequacy of interconnection arrangements to permit vigorous competition. Furthermore, in deciding whether to grant the application of a regional Bell company to offer long-distance service, the FCC must accord "substantial

weight" to the views of the Attorney General. This special legal standard ensures that the FCC and the courts will accord full weight to the special competition expertise of the Justice Department's Antitrust Division--especially its expertise in making predictive judgments about the effect that entry by a bell company into long-distance may have on competition in local and long-distance markets.

Title V of the Act is entitled the "Communications Decency Act of 1996." This section is specifically aimed at curtailing the communication of violent and indecent material. The Act requires new televisions to be outfitted with the V-chip, a measure which President Clinton said, "will empower families to choose the kind of programming suitable for their children." The V-chip provision relies on the broadcast networks to produce a rating system and to implement the system in a manner compatible with V-chip technology. By relying on the television industry to establish and implement the ratings, the Act serves the interest of the families without infringing upon the First Amendment rights of the television programmers and producers.

President Clinton signed this Act into law in an effort to strengthen the economy, society, families, and democracy. It promotes competition as the key to opening new markets and new opportunities. This Act will enable us to ride safely into the twenty-first century on the information superhighway.

We wish to acknowledge the contribution of Loris Zeppieri, a third year law student, who helped in gathering these materials.

Bernard D. Reams, Jr.
William H. Manz

St. John's University
School of Law
Jamaica, New York
April 1997

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S. Hrg. 103-757

FEDERAL TELECOMMUNICATIONS POLICY

HEARING

BEFORE THE

COMMITTEE ON GOVERNMENTAL AFFAIRS UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

MAY 3, 1994

Printed for the use of the Committee on Governmental Affairs

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FEDERAL TELECOMMUNICATIONS POLICY

TUESDAY, MAY 3, 1994

U.S. SENATE,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, DC.

The committee met, pursuant to notice, at 9:35 a.m., in room SD–342, Dirksen Senate Office Building, Hon. John Glenn, Chairman of the Committee, presiding.

Present: Senators Glenn and Roth.

OPENING STATEMENT OF CHAIRMAN GLENN

Chairman GLENN. Good morning. The hearing will be in order.

Today we meet to discuss what stands among the most important issues of government, and I can tell you, one of the most expensive; government-wide telecommunications. It concerns how we communicate with each other not only within government, but outside of government as well. I know just the civilian end of things is over $1 billion a year, and we do not have a figure for all of defense telecommunications, but its cost probably equals that and more. So we are talking about something that is very, very expensive.

I have a longer statement which I am submitting for the record, which I do not usually do. But this is an important matter. I will summarize the statement this morning.

We face very significant uncertainties in the telecommunications market, including the emergence of new technologies, and the mergers of companies and technologies. If we look back and think of what has happened just in the last 3 or 4 years, it is mind-boggling how fast we have moved ahead with some of these technologies.

Market dynamics are sure to affect significantly the structure of government telecommunications needs and the breadth of requirements. I commissioned a GAO review of government-wide telecommunications, focusing on DISN, the Defense Information System Network, and on questions that I have raised regarding the up-front assessment of government-wide functional needs.

Since my request for a review, the Defense Information Systems Agency (DISA) delayed the issuance of the draft request for proposal RFP, for the integration support contract for DISN, to assess along with GSA, the benefits of aggregating government-wide needs.

Last month, both DOD and GSA announced their agreement to identify common business requirements for consolidated acquisition. I applaud these efforts, because answers to questions regarding consolidation of civilian and military needs will aid our ability to leverage market uncertainty to our cost and technical advantage.

Rather than structuring our needs along arbitrary agency lines, GSA and DOD are trying to take a broad view of government, with an eye toward aggregating functional requirements in the most efficient administrative solution that we can figure out.

What should emerge from this effort is a system that contains effective management and policy parameters. Acquisition methods for the system should be flexible, to assure that the government can respond to market changes and the technology evolution that happens so rapidly.

We are learning that the bulk service level where the government obtains the lowest price may be at a volume of services lower than that anticipated for the post-FTS 2000 environment. Thus, we may also want to consider the efficiencies that may be obtained by partitioning services among several contractors who provide those services.

Certainly, electronic data interchange (EDI) and the defense messaging system (DMS) anticipated on future systems will require the government to be vigilant in requiring system interoperability. With the potential for multiple vendors, the government likely will need to consider the services of systems integrators. In such a multi-vendor environment, the need for interoperability standards becomes critical. The standards must be identified and expressly stated before acquisition begins to assure the agencies and the services that they can communicate with each other.

We are here today to begin the discussion of how the government will manage uncertainty. I think we need to answer first whether we are going to have the mandated participation that we had before when we went into FTS 2000, or whether what we need with the rapid pace of development in these areas is an information center where different users can do their own contracting. I just toss that out as a possibility. I am not suggesting it this morning, but it is difficult to see how we can integrate these diverse requirements all under one or two contracts, as we have done in the past with FTS 2000.

I think with the rapidity with which things are moving in this field, we need to consider every option, as we move ahead. Therefore, I repeat, our discussion is how the government will manage uncertainty. I do not think that overstates it.

We will hear from three panels intimately connected with these issues, the GAO, DOD and GSA. There is a lot of work to be done. It is as very, very complex issue, but I stand committed to facilitating a cooperative solution to assure that the government is positioned most advantageously in its telecommunications future.

[The prepared statement of Senator Glenn follows:]

PREPARED STATEMENT OF SENATOR GLENN

Good Morning. Today we meet to discuss what stands among the most important issues facing our government in the future: government-wide telecommunications. This issue impacts not only government operations, but, because of the sheer size of the Federal Government, the entire national information infrastructure spoken of

so frequently by the Vice President. With this understanding, the efficient acquisition and management of new networks becomes significant.

This Committee maintains an active role overseeing government-wide telecommunications. Those of you following our FTS 2000 work will recall our hearings uncovering GSA's initial mismanagement of that program. Contract-mandated revenue shares between the two vendors in the program were improperly allocated; prices to agencies exceeded the market, in part, because market conditions were not foreseen; and GSA overhead added cost to the agencies, contributing to the opposition to mandatory use of the system, threatening its optimal use.

We also released studies last year on DOD telecommunications issues concluding that DOD failed to follow a logical, systematic approach to telecommunications planning and had no clearly articulated vision of improved business and management practices. In addition, we found that DOD's plan for the replacement of the Defense Commercial Telecommunications Network (DCTN) contract was overly optimistic given that DOD had yet to decide on an acquisition strategy for its remaining requirements.

Against this backdrop, we face significant uncertainties in the telecommunications market including:

- The emergence of new technologies;
- Competition in the local access market, including the possibility of long-distance carriers serving local markets;
- The potential entrance of the Regional Bell Operating Companies (RBOCs) on the long-distance scene; and
- Market and technology mergers of RBOCs and cable companies, and long-distance carriers and satellite companies.

These market dynamics are sure to affect significantly the structure of government telecommunications needs and the breadth of requirements. That's why I commissioned a GAO review of government-wide telecommunications, focusing on the Defense Information System Network (DISN), and why I've raised questions regarding the up-front assessment of government-wide functional needs.

Since my request for a review, the Executive Branch has taken significant, positive steps in planning for the follow-on networks to the two major DOD and civilian networks, DCTN and FTS 2000. The Defense Information Systems Agency (DISA) delayed the draft RFP on the Integration Support Contract for DISN to assess, along with GSA, the benefits of aggregating government-wide needs. Last month, DOD and GSA announced their agreement to identify common business requirements, for consolidated acquisition. As one of our witnesses, General Emmett Paige, said at that time, "this consolidated effort would form the foundation of a global information infrastructure."

I applaud these efforts because answers to questions regarding consolidation of civilian and military needs will aid our ability to leverage market uncertainty to our cost and technical advantage. They also signal a welcome change in the way we've been doing business. Rather than structuring our needs along arbitrary agency lines, GSA and DOD are trying to take a broad view of government, with an eye toward aggregating functional requirements in the most efficient administrative solution.

What should emerge from this effort is a system that contains effective management and policy parameters. Acquisition methods for the system should be flexible to assure that the government can respond to market changes and technology evolution. In this regard, we should learn a lesson from FTS 2000, where prices almost instantly were a problem because the market dropped over 30 percent after contract award. The government had no price-tracking mechanisms in place for it to respond quickly to these market dynamics.

With technology changing so rapidly, the government should be open to new ways of buying these services. Certainly, traditional suppliers could provide a range of services to meet the government's needs. But, we are learning that optimality for the government, that is, the bulk service level where the government obtains the lowest price, may be at a volume of services lower than that anticipated for the post-FTS 2000 environment. Thus, we also may want to consider the efficiencies that may be obtained by partitioning services among several contractors who provide those services efficiently.

Certainly electronic data interchange (EDI) and the defense messaging system (DMS), anticipated on future systems, will require the government to be vigilant in requiring system interoperability. With the potential for multiple vendors, the government likely will need to consider the services of systems integrators. In such a multi-vendor environment, the need for interoperability standards becomes critical.

Standards must be identified and expressly stated before the acquisition begins to assure agencies and services can communicate with each other.

These issues bring us here today to discuss how the government will manage uncertainty in this environment. First, we will hear from GAO representatives who will give us a review of telecommunications issues based on work previously completed and a snapshot of future issues. They will be followed by representatives of DOD to give us DOD's assessment of these issues and how the government will protect its interests when acquiring telecommunications in this dynamic market. Finally, GSA's Associate Administrator for FTS 2000 will give us the civilian agency assessment of these issues.

There's a lot of work to be done, and this is a complex issue. I am committed to facilitating a cooperative solution to assure that the government is positioned most advantageously in its telecommunications future.

Chairman GLENN. The GAO is our first witness this morning, our first panel, will be Jack Brock, who is Director, Information Resources Management/Policies and Issues Group, Accounting and Information Management Division of the United States General Accounting Office. He is accompanied by Frank Deffer, Assistant Director, National Security and International Affairs, Accounting and Information Management Division, and Deborah Davis, Senior Evaluator, Accounting and Information Management Division.

We welcome you this morning. Mr. Brock, if you would lead off, that would be fine.

TESTIMONY OF JACK L. BROCK, DIRECTOR, INFORMATION RESOURCES MANAGEMENT/POLICIES AND ISSUES GROUP, ACCOUNTING AND INFORMATION MANAGEMENT DIVISION, U.S. GENERAL ACCOUNTING OFFICE; ACCOMPANIED BY FRANK DEFFER, ASSISTANT DIRECTOR, NATIONAL SECURITY AND INTERNATIONAL AFFAIRS, ACCOUNTING AND INFORMATION MANAGEMENT DIVISION; AND DEBORAH A. DAVIS, SENIOR EVALUATOR, ACCOUNTING AND INFORMATION MANAGEMENT DIVISION

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

You have already introduced Frank Deffer and Debbie Davis, so I will not go through that again. I would also like to introduce, however, Kevin Conway, who was instrumental in helping us put this statement together.

You are absolutely right, when you said this is one of the most important ventures that the government is doing. This is a critical issue, an absolutely critical issue that affects the strategic direction of government telecommunications services. These services that we are talking about today in their most elemental form really are the backbone of the day-to-day operations of the government. The government could not function as a business without telecommunications.

In a more sophisticated form, telecommunications services can literally transform the way we do business, make it more service oriented, make it more responsive to the customer, to the citizens, and to the public. And I think that is what we are trying for in our next round of telecommunications.

This potential is very much recognized by the current administration in its intention to establish both a government and a national information infrastructure. And the current effort by DOD and GSA to consolidate the acquisition of telecommunications services for both civil and defense activities is a big step forward.

Now, I want to very strongly say right here, Mr. Chairman, that we support this effort. We support what they are doing. It is a good idea and they have made a good start. However, in traditional GAO fashion, we are going to throw out a few caveats in a little bit which provide some warnings that we think should be addressed over the upcoming months, as they proceed with this.

I would like to very briefly recap what is going on, what has gone on in the management of both the FTS 2000 program and in defense telecommunications.

As you know, Mr. Chairman, we have done quite a bit of work for this committee. We have testified before you before, and we have prepared reports for your Committee and other committees on the Hill on the early stages of GSA's management of the FTS 2000 program. Frankly, we were disappointed. We thought they had numerous problems in appropriately allocating traffic among the two networks. They had problems in managing their overhead. And, most importantly, they had problems with their price.

We testified before you just 3 years ago, and we stated flat-out that the government was not getting a good deal on FTS 2000, and that corrective steps needed to be taken.

Chairman GLENN. One of the things that happened at that time also was we had an enormous change in the market just after that was instituted.

Mr. BROCK. Absolutely, and that gets to——

Chairman GLENN. And the contract was not one that was set up to take care of that rapid a change, and so we got behind the curve on that, and FTS 2000 got a deserved bum rap, perhaps, if there is such a combination of words. That is one of the things that happened.

Mr. BROCK. Absolutely, and one of the things that we will deal with later is the flexibility that needs to be built in to account for that.

However, I am pleased to say right now that GSA has made really remarkable progress in turning this thing around. They have done a fantastic job through the Interagency Management Council of involving agencies and helping evaluate and determine strategic and management decisions to be made. And most importantly, through the recent price redetermination service reallocation process, the government now has telecommunications rates that are competitive or even lower with non-commercial rates, and this is a giant step forward.

GSA right now is in the middle of planning to determine the requirements and the acquisition strategy for its post-FTS 2000 telecommunications systems. This is important, because the current contracts expire in 1998.

DOD has also had its share of problems in managing telecommunications resources. DOD has a more complex problem than many of the civilian agencies. It has to manage or rely on a broad range of voice, data, video and imagery services delivered to users all over the world, and they must communicate with other agencies and they have to communicate outside with commercial business partners.

However, as GAO and the department's Inspector General and Defense's own internal studies have discovered or noted, the department has not yet established a framework needed for efficient and effective telecommunications resource management. This overall lack of telecommunications systems management and integration in Defense has resulted in a number of independent subsystems and networks supporting various organizations, functions and computer applications, and it lacks standardization in procedures, equipment and training.

Further, Defense telecommunications costs, which we were unable to really accurately measure, range between $10 and $20 billion a year, but they lack the visibility and control within the department and within the Defense budget for efficiently acquiring and providing communications services through the department.

Defense has recognized this as a problem, and in 1991 it adopted the Defense Information Systems Network or DISN strategy to consolidate and integrate its existing long-haul networks into a global end-to-end information network that would support the CCI functions requirements, as well as all Defense business areas.

Right now, the department has put the DISN acquisition effort on hold until the details of the consolidated effort with GSA are worked out. I would like to turn to that effort right now, and that is really the crux of what we are discussing today.

In early 1994, GSA and Defense recognized that it would be mutually beneficial to consolidate their efforts. They established the Joint Concept Review Committee, which I am going to refer to as the JCRC, to determine both the extent to which the post-FTS 2000, as well as the DISN, as well as the Government Emergency Telecommunications Service acquisitions to be consolidated.

The JCRC in a recent report found no overwhelming issue or combination of issues that represented what they say is an insurmountable obstacle to consolidation of military and civilian telecommunications acquisitions. However, they did identify three areas of strategic importance to the success of any consolidated acquisition. Those three are (1) minimizing the complexity of management and oversight, (2) maintaining aggressive competition, and (3) ensuring operability of services and systems.

Mr. Chairman, we agree with these concerns. This is an enormous undertaking, and the significance of the problems and issues that must be addressed by the JCRC cannot be minimized.

We have some similar issues which I would like to briefly discuss which we feel also must be addressed in order to achieve success. The first of these is the whole management issue, and there are two aspects of that management issue.

First, the complexity of planning for this undertaking requires a very strong management structure to establish a framework to reach the necessary decisions that must be made on a very timely basis on such critical topics as service requirements and acquisition strategy. Steps need to be taken to ensure the well-defined procedures and processes are in place to assure that service objectives and requirements are fully defined, and that appropriate alternatives are developed and considered to determine the most effective way of meeting those requirements.

The second aspect of the management concern is that the central management functions of the current telecommunications systems are largely carried out by the Defense Information Systems Agency and GSA's own Office of FTS 2000. This structure may or may not be viable for post-FTS 2000 management. The service requirements and acquisition strategy for the post-FTS 2000 telecommunications system should be primary determinants on the most appropriate structure for managing the new system. We believe that this management structure must be clearly defined and operationally capable, as transition to the new system occurs.

The second point I would like to address, Mr. Chairman, is that of requirements. Government's telecommunications needs will eventually be shaped into a set of requirements which will in turn establish the framework of the future communications infrastructure. The government's ability to meet expected agency telecommunications needs, and in large part the agency's ability to fulfill mission requirements, hinges on well-defined requirements that are described in functional terms, not technical terms, but functional terms, that is to identify requirements in terms of desired performance characteristics, as opposed to technical or hardware specifications. This will allow a greater range of potential solutions and enhances opportunities for competition among different vendors.

The last point we have is that of flexibility, and this is one that we discussed just a moment ago. The telecommunications market is incredibly diverse and it is incredibly dynamic. Rapid changes in technology, dramatic new uses for enhanced services, and continued change on the regulatory side all combine to create a marketplace where the only real uncertainty is that change itself.

As the marketplace changes, so will agency needs and demands. FTS plans must remain flexible enough to permit technology and service enhancements over the life of the program.

Mr. Chairman, ultimately the question that must be answered now is: How can Federal agencies best use telecommunications to transform themselves to be more responsible to the citizenry? Indeed, the administration's recent proposals for the National Information Infrastructure and on the National Performance Review make clear that business as we conduct it now is no longer acceptable, that government needs to be more efficient, and the government must be more responsive to its citizens, to its taxpayers and to the public, its customers.

For more efficient service to its citizens, to more efficient acquisition and management of telecommunications resources, the proposed consolidated acquisition of civil and defense requirements offers a very unique opportunity to establish the essential infrastructure that is necessary to carry the government into the 21st Century and to begin to realize the economies and promise of the information age.

Mr. Chairman, that completes my summary. I would ask that my complete statement be inserted in the record, and I am available for any questions that you might have.

Chairman GLENN. Thank you. Your entire statement will be included in the record as though delivered.

[The prepared statement of Mr. Brock follows:]

PREPARED STATEMENT OF JACK L. BROCK

GOVERNMENTWIDE INITIATIVES

CRITICAL ISSUES FACING THE NEXT FEDERAL TELECOMMUNICATIONS SYSTEM

Mr. Chairman and Members of the Committee:

I am pleased to participate in the Committee's hearings on the future of telecommunications in the Federal Government. In recent months, the General Services Administration (GSA) and the Department of Defense have embarked on an initiative to consolidate the acquisition of telecommunications services for both the Civil and Defense agencies of the government.

This is an important and positive step. In principle, we support the consolidation initiative and believe that it could be the vehicle for developing a truly integrated, governmentwide telecommunications system. However, the consolidation effort must address a number of significant issues to assure success.

Mr. Chairman, my comments here today are based on our previous reviews of the Federal Telecommunications System (FTS) 2000, Defense communications, and telecommunications policy issues. Specifically, I will discuss

—the progress GSA has made in improving its overall management of FTS 2000;
—Defense's efforts to reinvent the way it manages its communications resources; and,
—the recent decision by GSA and Defense to consolidate communications requirements for the follow-on to FTS 2000. I will also discuss a number of key issues that the Congress and executive branch agencies will need to consider in planning for a consolidated telecommunications acquisition.

Background

FTS 2000 is providing voice, data, and video telecommunications services for the Federal Government through 1998 at an estimated cost of $10 to $12 billion. In fiscal year 1993, FTS 2000 cost the government a reported $547 million. Defense is one of the largest FTS 2000 customers, accounting for around $84 million in reported yearly revenues. Still, less than 20 percent of Defense's long distance telecommunications traffic is handled by FTS 2000.

FTS 2000 is also a key element of the National Information Infrastructure (NII), which will consist of thousands of interconnected, interoperable telecommunications networks, computer systems, and information databases and services. In the future, the NII, also known as the "information highway," will enable all Americans to access information and convey voice, video, and data to others, all at an affordable price. A component of the NII is the Government Information Infrastructure (GII), which will consist of all the electronic services and systems used to support government operations and provide services to the public.

FTS 2000 Management Has Improved

As you know, the FTS 2000 program has provided long distance telecommunications services to Federal Government users for nearly 5 years. During this time, GSA has improved its overall management of FTS 2000, particularly by obtaining increased agency participation in program management and securing services at rates competitive with commercial rates.

Just 3 years ago, we appeared before the Congress expressing concerns about GSA's management of FTS 2000.[1] First, GSA had become embroiled in controversy concerning its handling of network traffic assignments, which had resulted in one vendor receiving more traffic than was warranted under the contract. Later, GSA's handling of FTS 2000 prices came under scrutiny, when it became apparent that both vendors' prices were well above prevailing commercial rates. At that time, GSA had no effective means to ensure that the government received the best prices for FTS 2000.

Fortunately, the situation since then has improved. Management and organizational changes at GSA have helped to redirect FTS 2000 by providing a central management focus. GSA has also effectively used the Interagency Management Council to assist in developing strategies and policies for ongoing management issues. Further, GSA's management of the Price Redetermination/Service Reallocation process in 1992 resulted in prices that are generally below the lowest known commercial rates. And, although the FTS 2000 contracts have 4 more years to go, GSA has already begun planning for the follow-on to FTS 2000.

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[1] *General Services Administration's Management of FTS 2000* (GAO/T–IMTEC–91–9, Apr. 18, 1991), *FTS 2000 Recompetition: Opportunity Exists for Better Prices* (GAO/T–IMTEC–92–1, Oct. 22, 1991).

Defense Efforts to Improve Communications Management

The Department of Defense has also encountered significant problems in managing its communications resources, and it too has several key initiatives underway to address these problems. Defense relies upon a broad range of voice, data, video, and imagery services, delivered to users scattered around the globe through numerous communications media to perform its missions. As such, Defense communications requirements extend not only across the military services and Defense agencies, but outside the Department, embracing commercial business partners through initiatives such as electronic data interchange.

However, as we, Defense's Inspector General, and Defense internal studies have noted over the past several years, the Department has not yet established the framework needed to efficiently and effectively manage its telecommunications resources. This lack of overall telecommunications systems management encourages diversity among systems, inhibits interoperability, and decentralizes management and resources. Defense's communications are presently characterized by a number of independent subsystems and networks supporting various organizations, functions, and computer applications that lack standardization in procedures, equipment, and training. Further, Defense's telecommunications costs, estimated to range from $10 billion to $20 billion annually, lack the visibility and control within Defense programs and budgets necessary for efficiently acquiring and providing communications services throughout the Department.

Defense recognizes that it needs to significantly change the way it acquires and manages its communications resources. In Defense Management Report Decision 968, the Department stated that it must develop an integrated approach to the management and acquisition of communications resources and reduce communications costs. Subsequently, in 1991 the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence adopted the Defense Information System Network (DISN) strategy to consolidate and integrate Defense's existing long-haul networks into a global, end-to-end information network supporting command, control, communications, and intelligence requirements as well as all Defense business areas. As such, DISN must ensure interoperability across the telecommunications networks of both Defense and non-Defense agencies. However, the Department has placed its DISN acquisition efforts on hold until the details of the proposed joint venture are worked out.

Consolidation of Federal Government Networks

GSA initiated the concept development phase for the follow-on to FTS 2000 in April 1993, culminating in a government/industry conference in October 1993. This conference provided an open forum for discussing technical, management, and policy issues related to the FTS 2000 follow-on initiative. GSA subsequently began work on an acquisition alternatives white paper, which it released last month. This white paper describes eight acquisition alternatives developed for the post-FTS 2000 environment. The next crucial step is to gain consensus on an acquisition approach.

Meanwhile, the Joint Concept Review Committee (JCRC)[2] was formed in early 1994 by GSA and Defense to determine the extent to which the post-FTS 2000, DISN, and Government Emergency Telecommunications Service (GETS)[3] acquisitions could be consolidated. The JCRC found no overwhelming issue or combination of issues that would be an insurmountable obstacle to consolidating military and civilian telecommunications acquisitions. Further, the JCRC identified three areas of strategic importance to the success of a consolidated acquisition:

—minimize the complexity of management and oversight;
—maintain aggressive competition; and,
—ensure the interoperability of systems and services.

Mr. Chairman, as mentioned earlier, we agree in principle with the concept of a joint venture between GSA and Defense. However, it will be an enormous undertaking, and we do not want to minimize the significance of the problems and issues that must be addressed. As such, we concur with the JCRC's three areas of strategic impact but would amplify these with our own areas of concern.

Management: Two levels of management issues must be addressed. First, because planning for such a massive undertaking will be complex, a management structure

[2]The JCRC was comprised of representatives from GSA, the Defense Information Systems Agency, the National Communications System, and the departments of Veterans Affairs, Transportation, Agriculture, and Treasury.

[3]The Office of the Manager, National Communications System is implementing the GETS program to support National Security/Emergency Preparedness requirements.

must be established to address critical topics such as service requirements and acquisition strategy. Steps should also be taken to ensure that well-defined procedures and processes are in place to ensure that mission objectives and requirements are fully defined and that alternatives are considered to determine how to best meet those requirements.

Second, the central management functions for the future FTS must be clearly defined. Currently, management of long-haul telecommunications systems are largely carried out by the Defense Information Systems Agency and GSA's Office of FTS 2000. This structure may or may not be viable for post-FTS 2000 management. The service requirements and the acquisition strategy for the post-FTS 2000 telecommunications system will be key factors in determining the most appropriate structure for managing the new system. It is also imperative that this structure be operationally capable at the point when the transition to the new system occurs.

Requirements: The government's telecommunications requirements will also play a major part in shaping the future communications infrastructure. The government's ability to meet expected agency telecommunication needs, as well as each agency's ability to fulfill mission requirements will hinge on the identification of functional requirements. These requirements must be well defined and describe needs in functional terms. That is, telecommunications requirements must be identified in terms of desired performance characteristics, not just technical or hardware specifications. This will allow a greater range of potential solutions and enhance opportunities for competition among different vendors.

Flexibility: The telecommunications marketplace is incredibly dynamic. Rapid advances in technology, dramatic new uses for enhanced services, and continued changes in regulations create a marketplace where the only certainty is change. As the marketplace changes so will agency needs and demands. FTS plans must remain flexible enough to permit technology and service enhancements over the life of the program.

Mr. Chairman, the single-most important question that can be asked about the future network is this: How can Federal agencies best use telecommunications to be more responsive to the citizenry? Indeed, the Administration's recent proposals on the National Information Infrastructure and on the National Performance Review make clear that business as usual will no longer be acceptable; and that government must become more efficient and responsive to the needs of the public.

From more effective service for citizens to more efficient acquisition and management of telecommunications resources, the proposed consolidated acquisition of Civil and Defense requirements offers a unique opportunity to establish the essential infrastructure needed to carry the Federal Government into the 21st century, and realize the economies and promise of the information age.

* * *

Mr. Chairman, this concludes my statement. I would be pleased to answer any questions you or other Members of the Committee may have at this time.

Chairman GLENN. Many of us have been speaking of a future telecommunications system with an eye toward consolidating civilian and defense requirements. From our perspective, this consolidation could involve aggregating common business or functional requirements across the spectrum for common acquisition. Others, however, see consolidated acquisition as mandating one network encompassing all services and/or one network provider. What is your view of this? Do you have an opinion on that?

Mr. BROCK. Yes, sir. I generally agree with your proposal. The proposed network is so large and the volume of traffic is so large, that it generates many opportunities and alternatives for the acquisition strategy. I do not think you necessarily need to be wedded to one network. In fact, the acquisition strategies that are now being considered by the Information Management Council identify a number of alternatives which divide up potential acquisitions among functional areas, among service areas, and among span of control.

Chairman GLENN. In your testimony, you State that current central management functions for telecommunications "may or may

not be viable for post-FTS 2000 management." Currently, an Interagency Management Council (IMC) provides GSA with program and policy advice for the FTS 2000 network. What role could such an organization play in the post-FTS 2000 environment?

Mr. BROCK. First, let me just elaborate on the potential management structure. We believe that the management structure really must be dictated by the requirements set out by the contract. That will dictate the best way of managing it. Regardless of that structure, we believe that the Interagency Management Council should continue to play a very strong role in helping to shape the policy and strategic decisions of the post-FTS 2000 implementation mechanism. So I would see them continuing on.

Chairman GLENN. We are trying to make this whole thing fit into the so-called information superhighway that the Vice President has talked about a lot and which is mentioned in the National Performance Review. What role is OSTP playing in this? Have they played a major role in this at all so far?

Mr. BROCK. OSTP plays a major role in managing the information highway. Right now, OSTP is in charge of the high-performance computing and communications network, initiative rather, and they manage the activities that the current combined or proposed consolidated network must fit into, so as such they are playing a large role. I am really not sure, I could not say definitively the extent of the role they are playing on the current effort.

Chairman GLENN. One problem identified in managing FTS 2000 is the overhead charge levied by GSA on agencies for administrative costs. It was argued that agencies can effectively manage their own telecommunications programs more cheaply than GSA. This has been a problem since we first got into FTS 2000, as you are very much aware. Do you see that as a problem under a consolidated acquisition for the future?

Mr. BROCK. Yes. One of the most common complaints that we hear now about FTS 2000 is that of the overhead charge. It is also a complaint that we have heard about defense communications, as well.

The various acquisition strategies that have been proposed to GSA by the IMC in fact recognize different ways of managing and allocating overhead, depending upon the acquisition strategy. These really need to be clearly articulated and laid out.

We found that many of the overhead requirements that were placed on the existing contract were in fact placed upon them by contract requirements, which in hindsight may or may not have added any value to the service delivery agencies. These issues need to be considered much more strongly up-front in advance of the acquisition.

Chairman GLENN. Do you think those costs could be cut down? In your estimation does GSA need 10 percent?

Mr. BROCK. Your question was whether or not the 10 percent figure could be reduced?

Chairman GLENN. Yes.

Mr. BROCK. We did a report a couple of years ago, and we identified a number of opportunities that GSA could take to reduce the overhead rate. They have taken some of those steps. We also identified a number of opportunities where we thought that value was

not being added and that GSA was in fact bound by the program requirements, and they had very little option. I think the primary options for reducing overhead really exist in the next contact as opposed to what is going on right now.

Chairman GLENN. Do you anticipate using megacenter telecommunications to manage traffic? What are your preliminary views on such an approach?

Mr. BROCK. We know that DOD is seriously contemplating using these integrated management centers for management of the DISN. In fact, we have also in our travels found that many private concerns, very large private concerns successfully use these integrated management centers. So I think there is a lot of promise there.

However, the caveat we would throw out here is that you need to determine your functional requirements before you begin to commit to a management structure.

Chairman GLENN. Your statement cites flexibility as a key success factor. Could you explain that a little bit further?

Mr. BROCK. There are several elements, Mr. Chairman, that really fit into the whole are of flexibility. First, there is the technical area. You acknowledged in your opening statement that technology will change, and we agree with that. The post-FTS 2000 implementation vehicle needs to be flexible enough to allow agencies to take advantage of the technologies which in turn may allow them to take advantage and create new ways of doing business, of working with their customers.

The second aspect of flexibility lies with the whole regulatory realm. As you know, there are at present several bills being considered up here. There is the FCC, and there is the court system.

Chairman GLENN. You may have to do that. This is cutting out, too. I think it must be some place in the system.

Mr. BROCK. We need to be flexible enough in the new contract vehicle to allow for changes in the regulated market. Lastly, and I think we really discovered this in the first three or 4 years of the existing program, we need to be flexible enough to take advantage of the cost structure. We need to be flexible enough that we are not locked into a set of costs and rates that are not competitive with the commercial market.

Chairman GLENN. As we move in this technology area, a lot of the advances have been because of switching technology that has moved forward. It is happening in other areas, too. For example the cost of cellular phones has come down. I know that the whole Federal system does not depend on cellular phones, but it is indicative of what is happening in the whole market.

Three years ago, I purchased a cellular phone, and I think the package I got, including the battery charger, was a little over $1,200. One of the people in our office got one just a couple of weeks ago and the whole package, the same one that I got 3 years ago, is now $189 for the whole thing. Now, maybe they are making up the cost on the charges for the use of it, but it indicates how fast these things have been advancing.

Interoperability, the ability to have information flow freely between networks is a significant challenge to the success of the future telecommunications system. Indeed, interoperability has been

an issue with the FTS 2000 contracts. There have been points where the two networks could not communicate with each other. How can we best address interoperability issues in the future?

Mr. BROCK. There are really two aspects of that, as well, Mr. Chairman. First, one of the problems with the old FTS 2000 system or the current one that we have, rather, is that interoperability was an intent, but there was no real clear definition of how we would achieve that intent. I believe that in the current contract or the new contract that will be coming in, we need to clearly lay out the intent of interoperability, when you want interoperability and what the standards will be, so that bidders can prepare their bids to respond to that.

There also needs to be a recognition, however, that many elements of our current telecommunications systems are very old legacy systems, they are going to be very expensive to transform into something that is interoperable. This needs to be recognized as a cost factor, and transition plans need to be put into effect where we can begin to transition the legacy systems into an interoperable system.

Chairman GLENN. You note that the Joint Concept Review Committee (JCRC) established by GSA and DOD to review consolidation issues identified as key to the success of consolidated acquisition several areas. One of those issues is minimal complexity and management oversight through the maintenance of aggressive competition through the system and service interoperability. Do you have suggestions in each of those areas?

Mr. BROCK. I only wish that the JCRC had gone further and given their suggestions. There is no silver bullet on this. But on minimizing the complexity of management and oversight, a lot of that depends upon the acquisition vehicle and the requirements that are going to be met. And the needs, as you begin to determine the requirements, you need to be very explicit early on as to the type of management structure that needs to be in place. If, in fact, one of your primary objectives is going to be to minimize complexity of management oversight, the acquisition and the service provision has to be such that it can in fact be achieved.

On maintaining aggressive competition, it is critical that the requirements be put forth in functional terms that do not limit or restrict vendors to technical solutions that they may not be able to provide.

And on the ensuring interoperability of systems and service, that relates back to my earlier response, that is, clearly, as you are going through the requirements setting stage, you need to determine the necessity of interoperability, where that will occur and what the standards will be that need to be met.

Chairman GLENN. I mentioned OSTP a little while ago, and you said that they are playing a major role in this effort. Are they a member of that JCRC?

Mr. BROCK. I do not think so, Mr. Chairman.

Chairman GLENN. Should they be?

Mr. BROCK. I think that should be considered.

Chairman GLENN. I would think so, too, because if they are trying to tie this into the national information infrastructure, it seems

to me they should be in on this Joint Concept Review Committee. Maybe that is something we ought to look into.

What was the basis for the formation of the JCRC? It is not required by law; it was formed just because the affected parties got together, is that not it?

Mr. BROCK. Yes, that was based on conversations between Mr. Johnson at GSA and I believe Mr. Paige.

Chairman GLENN. It is my understanding that a government-wide task force on electronic mail has recommended that the Defense Messaging Service (DMS) be acquired government-wide. How should the DMS procurement be factored into a consolidated acquisition?

Mr. BROCK. DMS is an application that would run on the network, and to the extent that DOD, as part of its requirements, identifies the need for DMS, then that would need to be factored into the acquisition strategy for the consolidated acquisition.

Chairman GLENN. Do you agree with the results of their report?

Mr. BROCK. We just received the report 2 days ago, Mr. Chairman. Although I have leafed through it, I really have not had an opportunity to study it, but we could provide an answer for the record on that.

Chairman GLENN. All right. Just in wrapping up your testimony, in retrospect, what we were trying to do with FTS 2000 was put together all the government communications as much as possible into one pod, so we would have more leverage in bidding.

Now, what seems to have happened over the past 5 years or so is we have had so many companies competing with each other, that some of that competition has forced prices down now to where I am not sure that we get much more leverage by one big government contract that might be more unwieldy in a very rapidly changing technology environment. What are your comments on that? Has the basis for what we were trying to do changed enough that we have to change along with it?

Mr. BROCK. As we mentioned in the flexibility section, the basis is always changing, and that is why we need to be agreeable and flexible enough to change along with it. I think when we did the original FTS 2000 telecommunications, that the capabilities of the government to manage telecommunications networks, to deal in a reasonably sophisticated manner with the vendors pretty much dictated the structure we had and that it was appropriate.

I think as we are considering the new structure, alternatives such as you suggested also have to be considered. And it is my understanding that as the IMC is considering alternative strategies, they are in fact considering solutions such as the one you mentioned.

Chairman GLENN. I know we have a lot of different companies represented here today; I would be surprised if we did not, but I do not want anyone to think that I am pushing a certain direction. I am not. What we are trying to do at this point is make very certain that we consider all options as we move into the post-FTS 2000 environment, and that is the reason I have asked some of these questions here this morning.

Thank you very much. We appreciate it. We may get back to you with additional questions, and we would appreciate your reply to them as early as possible, so we can include them in the record.

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

Chairman GLENN. The next panel testifying for the Department of Defense is General Emmett Paige, Jr., Assistant Secretary of Defense for Command, Control, Communications and Intelligence (C3I), accompanied by Lieutenant General Alonzo Short, Director of the Defense Information Systems Agency (DISA).

I would say to both the generals here, we are extremely grateful to you for the help you have been giving to this committee's oversight efforts. We appreciate that.

General Paige has assisted in the effective resolution of problems associated with the Navy's TAC4 program. General Short provided the Committee with a close-up look at DISN plans over the last year. Both have maintained an open environment for constructive dialogue, which we certainly appreciate.

We look forward to your testimony this morning and thank you for being here.

General?

TESTIMONY OF GENERAL EMMETT PAIGE, JR., (RET.), ASSISTANT SECRETARY OF DEFENSE FOR COMMAND, CONTROL, COMMUNICATIONS AND INTELLIGENCE (C3I), U.S. DEPARTMENT OF DEFENSE; ACCOMPANIED BY LIEUTENANT GENERAL ALONZO E. SHORT, JR., USA, DEFENSE INFORMATION SYSTEMS AGENCY

General PAIGE. Thank you very much for inviting us. we are indeed—I should not say we are happy to be here, but we are proud to be here. [Laughter.]

Chairman GLENN. We will try and make it as painless as possible.

General PAIGE. In addition to General Short sitting to my left, I also have some other people from my staff. Diane Fountaine is sitting back here, Dr. Signori from General Short's staff, and a few others.

Mr. Chairman and members of the Committee, I appreciate this opportunity to appear before you today to discuss the future of telecommunications in the Department of Defense. I have with me, as I said, General Short, Director of the Defense Information Systems Agency. Both General Short and I have submitted written statements for the record. I would, however, offer the following brief set of comments.

Since my appointment as Assistant Secretary of Defense for Command, Control, Communications and Intelligence, I have reviewed past department policies on how we satisfy DOD's information system requirements, and we have made some changes. Of course, after 41 years in the military and at least two tours in DISA, let there be no doubt that I am very familiar with the networks and some of the issues as to whether or not we in Defense would use FTS 2000 or not.

The changes that we have made are predicated on three driving factors, successfully satisfying DOD's role in this administration's national goals and policies. And the most important, fulfilling

DOD's mission of providing for the Nation's defense, and ensuring the implementation of the most cost-effective solutions to the taxpayer, while meeting our war-fighters' needs.

DOD's expertise in global networking comes from our long-standing commitment to meeting the department's basic mission of providing for the Nation's defense, and, as such, supporting the war-fighters. As we have moved out of the Cold War era, we are facing a series of C3I related challenges which must be addressed.

As we migrate our systems' capabilities to support the changed national defense strategy, we must ensure our systems have the flexibility to satisfy potential regional conflicts and to do so with joint service and coalition partners. We also must ensure the continued preservation of the force multiplier effect that technology, including information technology, brings to the war-fighter. Our system development activities and the resultant products are driven by the needs of the war-fighter. The war-fighter is the foundation of our existence and our Nation's defense.

The department's experience with telecommunications services provided by the General Services Administration and their service contracts under FTS 2000 are a matter of congressional record. Members of my staff have testified before this very Committee on that subject. The department has stated on many occasions that we are willing to work with GSA to improve that relationship and support the department's telecommunications needs.

Our current near-term Defense Information System Network (DISN) activities have involved not only the integration of the department's networks, but have also increased our current use of transmission services provided by FTS 2000.

When the decision on a far-term DISN acquisition strategy was initially reached, it raised questions, as this committee has, regarding the aggregation of all government telecommunications needs and the cost efficiencies to be attained from such actions.

With this in mind, I had a meeting with Mr. Roger Johnson, the Administrator for GSA, and we formed a Joint Concept Review Committee to review the potential to integrate the post-FTS 2000 acquisition effort with the far-term DISN effort. The committee was charged with identifying any issues related to consolidation and recommending a course of action.

On 4 April, Mr. Johnson and I received the Committee's preliminary report which found no insurmountable obstacles to supporting DOD in the post-FTS 2000 environment. Some major issues exist, such as program management and oversight, resolution of certain requirement differences between the military and civilian users, and the insurance of continued competitiveness in industry. None of these are viewed as insurmountable. They can best be resolved under the structure of the Interagency Management Council, and Diane Fountaine, sitting over to my left, is a DOD representative to that council.

While we have agreed that a joint acquisition strategy is the most cost-efficient way to proceed, we still have many aspects of this relationship to be resolved. Some are business process based, such as how will new technology services be acquired and how will billing and accounting be handled. Some are technically oriented,

such as how will system security be implemented, and what technology insertion will occur and when will it occur.

Some are operationally focused, such as how the user will exercise operational management and control. And some are related to how we will transition to what we want in the future. While many of these issues have been discussed, we must codify the details in a formal agreement. It is toward that end that we are currently working, and we should have many answers to these issues in the next few months.

We must also address those items that cannot wait for the future. I placed on hold various acquisitions that relate to DOD's telecommunications needs until the Committee's report was received. Some acquisition plans will now be cancelled and moved into that joint activity. Others, however, may have to be proceed. On those that must move forward, it is my intent that the Acquisition Working Group will be made aware of our plans, and, barring objections, we will proceed with those actions. In the near term, DOD will also continue to use the currently available contractual vehicles.

In conclusion, I hope the Committee recognizes the significance of DOD's and GSA's efforts in this area. We are both committed to increased excellence and cooperation in an effort that is critical to this Nation and its success in the global economy. It is imperative that we be successful. DOD also recognizes its importance in ensuring the Nation's security from outside threats.

Our ability to respond in the changing world and meet the challenges associated with regional contingencies is based in large part upon rapidly deployable, flexible, reliable and assured telecommunications connectivity anywhere on the globe. That is the war-fighters' need and we shall meet their need. Our actions will strengthen the department's ability to deal with the increasing pace of change and emerging requirements for more efficient and cost-effective telecommunications capabilities in support of the new national security environment.

This concludes my opening remarks. General Short and I will now be happy to address your questions.

[The prepared statement of General Paige follows:]

PREPARED STATEMENT OF EMMETT PAIGE, JR.

Mr. Chairman and members of the Committee, I appreciate this opportunity to appear before you today to discuss the future of telecommunications in the Department of Defense. I have with me LTG Alonzo E. Short, Jr., Director of the Defense Information Systems Agency. Both LTG Short and I have submitted written statements for the record.

Since my appointment as Assistant Secretary of Defense for Command, Control, Communications and Intelligence, I have reviewed past Department policies concerning the satisfaction of DOD's information system requirements and have initiated some changes. These changes are predicated on the following driving factors—successfully satisfying the Department of Defense's role in this administration's National Goals and Policies, fulfilling the Department of Defense' mission of providing for the Nation's defense, and ensuring the implementation of the most cost-effective solutions to the taxpayer while meeting our warfighters' needs.

The National Performance Review emphasized the need for government to put people first by cutting unnecessary spending and serving its customers. The look at information technology's role in accomplishing this resulted in three major focus—strengthening our leadership in information technology by providing clear strong leadership to integrate information technology into the business of government, implementing "Electronic Government" using cross agency programs that touch the

people, and establishing its support mechanisms. These support mechanisms include the establishment of an information infrastructure that meets the global needs of the people, development of systems and mechanisms to ensure the privacy (confidentiality) and integrity (security) of the information and its users, provision of incentives for innovation, and streamlined acquisition of information technology capabilities and tools. It is within this Global Information Infrastructure (GII) that our National Information Infrastructure (NII) is proposed to exist. It is within the NII, that a Government Information Network (GIN) will exist, and, within it, the currently evolving Defense Information Infrastructure (DII) will exist, supporting the warfighters' global role and mission. And it is within the DII that DOD's telecommunications exist. Certain elements potentially will be wholly integrated within the GIN such as the transmission media within the Continental United States (CONUS) while other elements such as the Service's deployable tactical communications systems may only be interfaced by gateways. The Information Infrastructure Task Force (IITF), chaired by the Honorable Ron Brown, Secretary of Commerce, is charged with working with Congress and the Private Sector to implement the NII. The Department of Defense has submitted to the Vice President and Mr. Brown its plan to support the NII—"DOD's Contributions to Promote the NII," in which we commit to building upon our information technology strengths to help make the NII a reality. DOD's plan calls for promoting the development of United States' information technology through dual use investments and continued research and development efforts; for assisting in the development of needed standards, privacy features, and security to protect the NII from catastrophic failures and breaches in information security; and for supporting a wide range of applications in areas of common interest using our expertise to build, manage, and operate a worldwide, heterogeneous, reliable network of multimedia information systems.

DOD's expertise in global networking comes from our long standing commitment to meeting the Department's basic mission of providing for the Nation's defense, and, as such, supporting the warfighter. As we have moved out of the Cold War era, we are facing a series of C3I-related challenges which must be addressed. As we migrate our systems capabilities to support the changed National Defense Strategy, we must ensure our systems have the flexibility to satisfy the potential diverse scenarios of regional conflicts occurring worldwide and to do so with joint service and coalition partners, with highly mobile, light and lethal forces. We also must ensure the continued preservation of the force multiplier effect that technology, including information technology, brings to the warfighter. The bottom line for all work by the Department of Defense is support for the warfighter. Our system development activities and the resultant products are driven by the needs of the warfighter, who is the foundation of our Nation's defense and that is why DOD exists. We must not lose sight of this.

The Administration's goals and Department's mission clearly affect the continually evolving telecommunications capabilities of the Department. They drive the strategy of what, how, when and why we acquire it. What, when and why we acquire a capability is driven by the validated needs of the warfighters. As such, taking timely advantage of new technological capabilities to offer to the warrior on the battlefield is critical to maintaining the force multiplier factor and successfully accomplishing the mission. How and when we acquire is driven by the acquisition regulations and the availability of funds. Therefore, lowering costs is critical to when and how we field new telecommunications capabilities. One major means of ensuring best value pricing is by fostering competition for products and services that are available in the commercial marketplace. This means satisfying the majority of DOD's telecommunications needs with commodity or service acquisitions predicated upon commercial off-the-shelf (COTS) telecommunications hardware and software. And for those requirements that cannot be satisfied with COTS-based capabilities, implementation of leading edge technology services will be based upon the rapid but reduced risk migration of tested newer technologies into DOD's communications platforms. The starting position for providing services and capabilities though is COTS. Another means of lowering cost is by reducing acquisition, management, and implementation overheads whenever possible. Aggregated acquisition and management within DOD and with the civilian agencies are means of reducing those burdening costs. The addition of value to the services being provided, such as security or directory services, reduces duplicative efforts and brings overall cost reductions to the user community—again, best value.

With many of these factors in mind, DOD has started work toward the integration of its disparate telecommunications networks into an integrated, globally-based, enterprisewide system—the Defense Information System Network (DISN). Near term activities include the consolidation of the Service and Agency "stove-pipe" systems into an integrated common-user transmission platform supporting video, voice,

data and imagery, with movement being made toward common-user switching services. We are also looking at where we need to go in the mid and far term periods. That look is what produced our initial proposal for the procurement of DISN. Before we finalized the format, technical and economic evaluations of the benefits and drawbacks of various potential procurement alternatives were looked at by DOD people as well as an independent evaluation by telecommunications and acquisition experts from other non-DOD government agencies. A proposed format with centralized procurement and operational management of the wide area network was considered to be the most efficient and cost-effective way to proceed, even with the potential interoperability issues that might initially arise as we worked our way through a standards-based implementation. We viewed this as one of those minor hurdles that will have to be cleared as this country proceeds to implement the NII in an interoperable, multi-vendor environment. Operational management of the DISN was recognized as a more difficult task, not one with just an initial hurdle, but one with daily hurdles. That is why a separate contractual vehicle was proposed to provide integration and operational support for the management of the overall DISN. This contract's role, in part, was to work with the regional providers and their management systems to provide an overall picture of the well-being of DISN. This issue of operational control of these telecommunications assets that are so critical to the successful execution of the Department's mission is a major concern within the Department. It is a central telecommunications issue that has affected our inter-service relationships in the past as it has with DOD's relationship with the civilian agencies. It is an issue whose root is based in the warfighter's needs for responsiveness and assured connectivity. It is an issue that is being addressed now and will continue to be addressed as we move toward an integrated national telecommunications infrastructure that will use assets of, and provide support to, the DOD.

The Department's experience with the telecommunications services provided by the General Services Administration (GSA) and their service contracts under FTS 2000 are a matter of Congressional record, as members of my staff have testified before this very Committee on this subject. The Department has stated on many occasions that we are willing to work with GSA to improve that relationship in support of the Department's telecommunications needs. Our current near term DISN activities have involved not only the integration of the Department's networks, but has also increased our current use of transmission services provided by FTS 2000. When the decision on the far term acquisition strategy was initially reached, it raised questions, as this committee has, regarding the aggregation of all government telecommunications needs and the cost efficiencies to be attained from such actions. With this in mind, Mr. Roger Johnson, the Administrator for GSA, and I formed a Joint Concept Review Committee to review the potential to integrate the post-FTS 2000 acquisition effort with the far term DISN effort.

They were charged with identifying any issues related to consolidation and recommending a course of action. On April 4, 1994, Mr. Johnson and I received the JCRC preliminary report which found no insurmountable obstacles to supporting DOD in the post-FTS 2000 environment. Some major issues do exist such as program management and oversight; resolution of certain requirements differences between the military and civilian users; and ensuring continued competitiveness in industry. None of these was viewed as insurmountable and was considered best resolvable under the structure of the Interagency Management Council (IMC) and its Acquisition Working Group (AWG), which is currently working the post-FTS 2000 acquisition strategy.

While we have agreed that a joint acquisition strategy is the most cost-efficient way to proceed, we recognize that additional challenges need to be addressed. Some are business process based such as how will new technology services be acquired and how will billing and accounting be handled. Some are technically oriented such as how will system security be implemented and what technology insertion will occur when. And some are operationally focused such as how the user will exercise operational management and control. Some are related to how we will transition from the way we look today to how we want to look in the future. While many of these have been discussed, we must codify this by a formal agreement addressing the details. It is toward that end that we are currently working, and should have many answers in the next few months.

We must also address those items that cannot wait for the future to arrive. I have placed on hold various acquisitions that relate to DOD's telecommunications' needs until the JCRC report was received. Some of those acquisition plans will now be canceled and moved into that joint activity. Some however will have to proceed. On those that must move forward, it is my intent that the IMC's AWG will be made

aware of our plans and what the acquisition entails, and, barring AWG or IMC objections, we will proceed with those actions. We will ensure that these contracting vehicles allow for their use by other agencies of the Federal Government. One such effort is the Hawaii Information Transfer System, a replacement system that will integrate current expiring services and expand that service across the eight major islands where DOD has service needs. Because of the current contract expiration dates and the limited services, this effort must move forward. In the near term, DOD will also continue to use the currently available contractual vehicles or the Defense Commercial Communications Office's (DECCO's) electronic bulletin board.

In conclusion, I hope the Committee recognizes the significance of DOD's and GSA's efforts in this area. We have both committed to increased excellence and cooperation in an effort that is critical to this Nation and its success in the global economy. It is imperative that we be successful. The Department of Defense also recognizes its importance in ensuring the Nation's security from outside threats. Our ability to respond in the changing world and meet the challenges associated with regional contingencies is based, in large part, upon rapidly deployable, flexible, reliable and assured telecommunications connectivity anywhere on the globe. That is the warfighter's need. Our actions must strengthen the Department's ability to deal with the increasing pace of change and the emerging requirements for more efficient and cost effective telecommunications capabilities in support of the new national security environment.

Chairman GLENN. Thank you, General Paige.

General Short, do you have a separate statement?

General SHORT. No, I do not, sir. I have already submitted a written statement.

Chairman GLENN. And that will be included in the record as though delivered.

[The prepared statement of General Short follows:]

PREPARED STATEMENT OF GENERAL SHORT

1. SUMMARY

The Defense Information Systems Agency (DISA), General Services Administration (GSA), and other principal Government Agencies have examined our communications requirements and concluded that it is both feasible and desirable to join forces, and consolidate our requirements into a common initiative. DOD information service requirements will be considered on a case-by-case basis and predicated on the results of a business case.

A Joint Concept Review Committee (JCRC) was constituted early this year to determine the issues associated with consolidating the Defense Information System Network (DISN), the Government Emergency Telecommunications Service (GETS), and the post-FTS 2000 acquisitions. The JCRC found no overwhelming issue or combination of issues that represented an insurmountable obstacle to consolidation.

We believe these findings coupled with; technology advances; changes in U.S. Military Strategy and; changes in the competitive market, support a joint strategy for acquisition of a cost effective, government wide set of services which can be responsive to the combined set of DOD and civilian government requirements.

In the Cold War era, the U.S. Military Strategy of being ready to fight a major war in Europe or the Pacific drove the DOD communications to a strategy of providing technologically advanced, dedicated, fixed plant infrastructure on the ground in these areas of potential conflict. The strategy for dedicated infrastructure was driven by the need for unique features which were not available in the commercial market place.

As the end of the Cold War approached, many changes were taking place that were to bring about a fundamental shift in the DOD strategy for providing communications and information services to the warfighters:

- The threats to U.S. interests were no longer focused in a few major areas of potential conflict
- U.S. Military Strategy changed to focus on regional conflicts that could occur anywhere in the world
- The communications and information industry was becoming deregulated
- Technology for provision of security, assured access, and other critical DOD features was maturing and becoming more readily available from the commercial market place at competitive prices.

- Many of the dedicated DOD communications systems were reaching the end of their economical life cycle, and were becoming costly to operate.

DOD's and DISA's response to these changes was to begin to move away from the government owned infrastructure philosophy and begin acquiring more and more commercial services. For example:

- the Defense Commercial Telecommunications Network (DCTN) provided telephone, video, and transmission in CONUS
- the Oahu Telephone System (OTS) provided telephone services in Hawaii and,
- many of the government owned transmission systems were replaced with leased wideband services such as the Washington Area Wideband System (WAWS), the Hawaiian Area Wideband System (HAWS), and the overseas wideband leases. (Some of the more leading edge technology systems will likely remain for some time until their technologies mature.)

The recent DISN acquisition strategy was the next step in this transition. It was designed to replace the early individual service contracts, and most of the remaining government owned systems with cost effective, regional, integrated, commercial service contracts. The DISN was planned for implementation on a very aggressive schedule to realize early savings necessary to respond to the DOD budget reductions.

The current emphasis on evolution toward a National Information Infrastructure (NII) has refocused our attention on ways to integrate the military and civilian communications and information service needs of the government. Our ongoing dialog with GSA and the other FTS 2000 agency participants is a direct outcome of that focus, and has confirmed that this approach is the way to go. We are realigning our DISN strategy accordingly.

Through the Acquisition Working Group (AWG), established under the Interagency Management Council (IMC) forum, we are planning ways to deal with the constraints we face, and pursuing resolution of the issues. DOD, GSA and the other IMC agencies will actively pursue this effort, and include industry as a partner as we refine our requirements and the strategy for satisfying them.

2. Pre-DISN Strategy

The structure and capabilities of the Defense Information System Network, formerly referred to as the Defense Communications System (DCS) has constantly evolved to reflect the National Military Strategy (NMS). The DCS is a composite of DOD-owned and leased subsystems and networks, that in many cases have been installed over 30 years. They have, however, been upgraded periodically as requirements and technology dictated. The NMS during the Cold War period was characterized by:

- a well defined threat, in both the European and Pacific Theaters,
- limited nuclear capabilities outside of the major powers,
- significant cohesion among the communist block countries,
- and the establishment of large contingents of prepositioned U.S. forces overseas.

The NMS strategy during this period resulted in a DCS structure that consisted of many fixed plant facilities, and particularly overseas, expansive U.S. government owned telecommunications systems. Much of the technology needed to counter the threats to the DOD Command and Control (C^2) telecommunications and information systems during the Cold War era was not available in the communications and information services offered to the general public. DOD's strategy to ensure that the necessary capabilities were available to support the Cold War military strategy was to acquire private networks and sponsor development of the necessary leading edge technologies within them to support critical C^2 users.

3. Defense Information System Network Strategy

3.1 DISN Strategy

The original DISN strategy sought to take advantage of the commercial marketplace to a much larger extent than ever before. The DISN acquisition strategy contained provisions for seven competitive awards: three awards for CONUS services, one award for services in the European theater, one award for services in the Pacific theater and one award to provide DISN support services to deployed forces.

Recognizing the potential problems associated with management and integration of various networks to ensure full interoperability and end-to-end service transparency, a seventh contract was included in the strategy to provide management

and integration support to DISA in the execution of these critical functions. Several factors contributed to this ability to use commercially available services.

3.2 Drivers of DISN Strategy

Profound changes are reshaping the strategic landscape in the post-cold war environment as evidenced by:

- the new national military strategy
- the availability of advanced, competitively priced technologies
- and changes in industry.

3.2.1 National Military Strategy

Changes in the international strategic environment, coupled with increasing pressures to move towards a balanced budget, resulted in a new national Military Strategy (NMS) published in June 1992. The new strategy shifts the focus from containing communism and deterring Soviet aggression to a more flexible, regionally-oriented strategy capable of countering a wide range of potential threats to vital U.S. interests.

The resulting national military strategy places even greater demands for responsive transfer of critical information from the highest levels down to the battlefield. New national strategies envision highly flexible Joint Task Forces supporting a spectrum of military/political responses to promote national interests worldwide. The communications and information infrastructure must respond quickly to new joint, coalition and organizational relationships that will be created on demand. Rapid deployment of force structure will be the standard mode of operation. We must be able to deploy and effectively extend our communications and information system capabilities to the deployed units. Our dependence on satellite capabilities, both commercial and military, will increase our capabilities to provide this reach back ability as our troops hit the ground. The vision for the warrior is a fused, real-time, true representation of the three-dimensional battlespace with the ability to coordinate in all directions.

3.2.2 Emerging Technologies

The explosion of technological advances in communications and information systems offers many opportunities for users to expand capabilities and/or reduce cost. Given the rapid change, the challenge we are facing head-on is the posturing of our programming and acquisition processes to rapidly capitalize on these evolving technologies. High bandwidth applications such as medical and battlefield images demand use of modern technologies. We are currently exploring the best way to influence development of industry's abilities to support these services. It is our intention to encourage industry to take advantage of advanced technologies, such as fast packet, frame relay, Synchronous Optical Network (SONET), and Asynchronous Transfer Mode (ATM) in order to provide higher quality, lower priced services.

With the advent of these emerging technologies, the changing military strategy and the resultant change in customer requirements, it is time to transition to systems and services that will facilitate technology insertion and provide continually competitive costs.

3.2.3 Regulatory Market Changes

The market environment was changing rapidly due to regulatory trends:

- the Federal District Court supervising the Modification of Final Judgment has permitted the Bell Operating Companies to provide information services,
- in a separate proceeding, a different Federal District Court has permitted Bell Atlantic to provide video services in competition with CATV vendors,
- the Federal Communications Commission announced the auction of 180 megahertz of spectrum in the 2 gigahertz frequency range for personal communications service.

With deregulation, the market forces impacting the telecommunications industry has been tremendous. This has led to competition in the local access market, including the possibility of long-haul carriers serving local markets. This is bound to increase the competition for DOD or Government services, which should result in lower costs. Local access, with respect to local exchange companies, remains heavily regulated by State and Federal, even under pending legislation. The local market is expected to become very competitive, and that has already started, but the competitors are being aided and protected by the FCC from the Local Exchange Carrier's market power. Almost one half of the current costs of communications is represented in the access area so the potential savings of increased competition in this area is very promising.

3.2.4 Industry Mergers

The telecommunications and information services market environment is also changing due to the mergers of communications and information service companies and maturity of evolving technologies:

- MCI has purchased a significant portion of British Telecom,
- Apple introduced the Newton personal communicator and its audio-visual-telecommunications-capable computers,
- three major carriers announced new wideband data services (ATM),
- Regional Bell operating companies, cable distribution companies, carriers, and satellite companies are negotiating mergers that promise increased end-to-end service capabilities from merged vendors.

Remarkable changes are reflected in the planned and announced partnerships and merger of telecommunications giants across the information spectrum. This trend should increase the number of vendors capable of providing sophisticated services at competitive prices. This increases our confidence that DOD needs can be met by the commercial services market at affordable costs. Rapid industry changes will continue to characterize the marketplace for telecommunications services. No single vendor will be capable of providing all the desired network solutions or capabilities. This will encourage partnerships and mergers of key industries in an attempt to gain a competitive advantage. Maximizing competition is one of the best ways to gain the best possible price for a commodity. As we assess the possible alternatives for joint acquisition of government communications and information services through the AWG we must put a high value on the degree of competition that each offers.

3.2.5 User Demands and Technology Merger

The relative importance of data services and traffic is expected to continue to increase rapidly and may dominate after 2000. Some industry observers anticipate the introduction of fully-integrated voice and data networks using ATM technology in both network and local access well before 2008. It is expected that a national data network will evolve within the next decade that will rival the public voice network in scope and robustness. The DOD data network is expected to be the seed bed to bring this into reality. The combination of the DOD and civilian data traffic will serve to provide the critical mass. Switched data service is expected to grow at almost 26 percent annually through 1998. Growth for high-speed services such as T–1 and T–3 services are expected to far outstrip growth for telephone and low-speed data services such as 4.8 kilobits per second analog and 56/64Kbps digital services. High speed circuits are expected to grow at 2 to 3 times the rate of low speed circuits.

The declining cost of bandwidth will continue to enhance the capability of networks to deliver data and applications such as video in a very cost effective manner. The availability of cheap bandwidth would also facilitate the introduction of high bandwidth applications like video and imagery to the desktop and to the foxhole. With the sharp drop in bandwidth cost, access and billing can then be expected to become the dominant part of the telecommunications costs.

3.3 Impact of these changes

Requirements such as rapid extension of services, surge capability, flexible restoration of service, battlefield images and security can now be satisfied in the commercial world at an acceptable cost. New technologies can allow private networks that are customized to the customer's requirements while sharing the physical infrastructure of a public network. To satisfy rapid deployment requirements, DISA has engaged in several commercial satellite initiatives. DISA's objective is to ensure our acquisitions are conducted in an environment of maximum competition. Our intent will be to influence the capabilities of new technologies by forming partnerships with other government agencies and industries rather than attempting to develop the technology independently. Wherever possible, we will encourage and adhere to commercial standards. Interoperability will be specified as a requirement in our acquisitions and strategies will be developed to encourage it.

4. JOINT STRATEGY

4.1 Accomplishments

About 62 million call minutes per month of DOD telephone traffic and 29 percent of our T–1 requirements are currently supported by FTS 2000. This service has been

quite satisfactory. The rest of the DOD requirements for communications and information services have been satisfied using the C^2 dedicated networks and systems of the DCS.

The DISN strategy outlined in the previous section was designed to replace most of the C^2 infrastructure by capitalizing on the state of the current telecommunications marketplace and potential for expanded use of commercial service provider networks and standards. This approach was not totally unlike that used to acquire the current FTS 2000 and that envisioned for the post-FTS 2000. The administration's and congressional emphasis on the development of the National Information Infrastructure encouraged DOD to strongly consider a consolidated effort.

DOD's relationship with GSA has evolved to become one of primary customer to the GSA telecommunications services provided under the FTS 2000 contracts. A refocus towards the consolidation of government wide services has placed the original DISN acquisition strategy on hold pending the outcome of the discussions with GSA. DOD's relationship with GSA and their other FTS 2000 users is rapidly changing to one of a partnership.

The first step in this new relationship has already been accomplished. A Joint Concept Review Committee (JCRC) was constituted early this year to determine the issues associated with consolidating DISN, Government Emergency Telecommunications Service, and the post-FTS 2000 acquisitions. The JCRC assessed technical, economic, and management issues associated with the proposed consolidation and found no overwhelming issue or combination of issues that represented an insurmountable obstacle to consolidation. The council also found that inclusion of DOD data services in a combined acquisition represents a significant increment of progress toward establishing a National Information Infrastructure (NII) as advocated by the National Performance Review. Additionally, the volume of DOD data requirements applied to a joint venture with GSA is likely to yield significant cost savings due to increased traffic volumes. Pursuant to the Committee findings, we have reached agreement with GSA and the other principal users of FTS 2000 services to begin planning a joint acquisition.

4.2 DOD Concerns

The current DOD communications system managed by DISA is a composite of DOD-owned and leased subsystems and networks comprising facilities, personnel and material. As such, the acquisition of new services as presently envisioned must recognize and address the following to achieve success:

- There are numerous contracts, totalling millions of dollars with varying expiration dates, that are directly supporting existing Service and Agency information service requirements. The expiration dates of these contracts will occur prior to the award of the post-FTS 2000 contract. Cost and political/legal constraints associated with extending these contracts must be weighed against the cost and feasibility of recompetition pending availability of services under the joint acquisition
- Some of the DOD owned legacy systems have not amortized their investment value. The schedule for transfer of services supported by these systems must consider the value of these unamortized assets and their effect on life cycle service costs
- Some of the DOD leased systems contracts, which may extend beyond the dates that services become available under the joint acquisition, may be subject to contract termination liability costs for early termination. The scheduling of the transfer of services supported by these systems must consider these costs
- Most of the overseas DOD communications and information services are currently supported by government owned infrastructure interconnected by a mix of government owned and leased circuits. The leased circuits conform to the local national standards. Many of these systems have been in place for many years and do not use the current U.S. technology. Studies have shown that while the cost of telecommunications via the public networks are rapidly decreasing in CONUS, this has not been the case globally. Therefore, to meet the telecommunications needs of the military forces overseas, even with a joint venture, we envision the continuation of a minimal U.S. owned (or perhaps jointly owned with our Allies) communications infrastructure. The actual OCONUS configurations will be worked out on case-by-case basis, depending on the host country policies, telecommunications capabilities and the threat scenario. We see very few technical obstacles with interfacing with the public networks overseas, since most of the standards being established are international, and the DOD's thrust is to go with commercial off-the-shelf (COTS) wherever possible
- Interconnection and interoperability of all services and critical features during the transition of DOD users to the jointly acquired services

- Identification of any DOD requirements that may not be suitable for inclusion in a joint effort
- Potential problems associated with integrated management of multiple vendor networks. The experience we have gained with our original DISN strategy will be applied here
- Agreement on schedule priorities that are responsive to the users
- Budget constraints will cause DOD planning, programming and budgeting documents developed several years ago to be reassessed and reprioritized in response to new Program Budget Decisions (PBD) and Defense Management Review Directives (DMRD).
- We are working through the Acquisition Working Group to address concerns such as these, and develop strategies to resolve them.

4.3 Next steps

Planning for the sharing of responsibilities between GSA, DOD, and the other FTS 2000 agency participants has already begun. This activity will continue as the agencies' requirements and various acquisition strategy alternatives are being evaluated.

Chairman GLENN. General, what do you see as the principal acquisition and implementation risk posed by the effort to consolidate civilian and defense needs, and what steps should be taken to minimize those risks? You addressed those briefly in your statement, but would you expand on that a little bit, please?

General PAIGE. The most significant risk, as I see it, is that of meeting the needs of the war-fighters in a dynamic changing environment. It is a risk, but I believe there are risks in any acquisition, particularly one of this size. We will not let anything deter or impact the efficiency of the department, our ability to go to war. To me, that is a risk that can be avoided and the risk that must be avoided.

We need to ensure that the civilian agencies are not adversely impacted by the costs that might be associated with some of the military requirements, such as assured service and global extension. These are all issues that I believe we can take care of and we should address in the months ahead, as we get down to the details in every alternative that we can possibly look at to try and bring about the coordination and the consolidation of effort that we are looking for.

Chairman GLENN. Interoperability in a multi-vendor environment is very, very important. That means we have to have very clear standards set, standards-based requirements. How is your work moving forward to identify those requirements?

General PAIGE. The work is moving forward to identify those requirements. I do not consider the requirements other than the security requirements to be that much different from the commercial marketplace. As you probably know, we within the Department of Defense are trying to migrate to international standards everywhere we can to commercial standards. Most of our defense communications networks and systems have been using international standards for many years now, and that is one of the advantages that the birth of the Defense Communications Agency, the Defense Information Systems Agency brought about.

As you may know, DISA has a center under their joint engineering organization, they have a center for standards. They work closely with NIST. As a matter of fact, they provide significant funding to NIST to try and keep the country ahead or abreast in the international arena and to foster those standards that are of

significance to us within the Department of Defense and to us as the Nation overall.

Chairman GLENN. You bring up the international standards. I was going to ask a question about that a little later, but I will do it now. Is there any major difference in international standards between your requirements in defense and civilian network requirements or other agencies of government that have some international communications problem also? Are there different standards that have to be met because of your requirements for classified communications and things like that, or are these pretty well the same in the international community for defense and civilian traffic?

General PAIGE. I will address it and then leave it to General Short, as the Manager of the National Communications System, in addition to being the Director of DISA.

I believe that the most significant difference is in security. When you look at it, most of the agencies of our government that have a need for communications externally, if that is the question, they too are concerned about security, and they get that same security from NSA. NSA provides that or is responsible for providing that to all the agencies of the Federal Government.

As far as standards are concerned, the standards relate greatly to the manufacturer manufacturing the protocols and what not, manufacturing of equipment, software protocols, that sort of thing.

General SHORT. Secretary Paige, I do not think I can add too much to that. I certainly would agree that security standards represent the most critical set of standards. However, as the manager of the NCS, one of the things that I have noted is that as we are moving more to coalition and as we are moving more to international organizations, standards bodies are meeting more frequently and addressing those concerns as you expressed, Senator Glenn.

Again, things do not move quite as fast as we would like in these standards bodies, National or international. But I can report today that there is movement, there are meetings and these things are being addressed.

Chairman GLENN. General Paige, as far as the actual communications going on, your classified communications requirement for a secure communications would be a small percentage of your overall communications requirement, I presume. Would that be correct?

General PAIGE. No, sir. In the future, I would submit that, as you have probably heard, the problems with Internet, the hacker's ability to get out there and get into the databases of any of these systems, I think it is very significant, very important that we start securing all of our communications systems, not just those in defense, but those across the Federal Government sector and certainly some of industry, as well.

It would be awful if we did not proceed and move out within the Federal Government sector to protect the critical databases that are out there, that if the hackers could get into them, could bring this country right to its knees.

Chairman GLENN. GAO testified that the current central management functions for telecommunications, to quote them, "may or may not be viable for post-FTS 2000 management." Currently, the

IMC provides GSA with program and policy advice for the FTS 2000 network. What role do you see that organization playing in a post-FTS 2000 environment?

General PAIGE. I will start with that. I see the IMC as continuing to play a role in the post-FTS 2000 environment. In fact, depending on how we can progress with the consolidation and how many players within the Federal Government sector we can bring in with us as a part of the action, not just GSA and DOD, but hopefully State and some of the others will come in, and I see the IMC as playing a very significant role.

General Short?

General SHORT. The IMC, along with the acquisition working group, in terms of assessing the requirements, in terms of being able to assess changes in technology, in terms of being able to just look at the regulatory program and policy changes—I see the IMC as a viable group in the post-FTS 2000 environment.

Chairman GLENN. In the past, there have been questions regarding the appropriate level of DOD participation in FTS 2000. You have noted that DOD currently has contracts with varying termination dates, thus services on those contracts will need to be handled elsewhere. Do you anticipate increased DOD use of FTS 2000?

General SHORT. Yes, sir. As you perhaps have gathered from the written documents, we already are the largest user of FTS 2000, and we certainly expect to see growth in that usage as a continuation. So I would tell you just point-blank yes, we will continue to use it and we expect growth.

General PAIGE. I would like to make a comment on that, too. I do not want anyone to believe that all of the study and all of the looking into the planning necessary to bring about the consolidation effort has been accomplished by the joint committee that we have. I believe we now have to go deeper, much deeper, and I am not going to be driven by the contract termination dates and what not. If necessary, to be sure what we do in terms of the consolidation, that we can pull it off and do it efficiently, if it means that we must go out and make some changes to the existing contracts, then we will do that, and I am sure that GSA probably shares that view.

I make that point, simply because the DCTN contract expires long before the FTS 2000 contracts. The most important thing to me is to do the necessary detail planning, and if we have to make some extensions, then we will do that.

Chairman GLENN. Given the breadth of options available in the commercial market, agencies more than ever need to identify and link services required to their missions and to pick the right options. Now, can that be done through an integration services vehicle, or is there another way that can best be done?

General SHORT. Well, I would answer that affirmatively, sir. I think the ability to relate agency and missions to the services available in the commercial marketplace is absolutely key, and our experience shows us that that certainly can be accomplished individually, but much more efficiently through an integration service contract that is looking across the breadth and depth of an effort.

Chairman GLENN. You contract out for that, in effect?

General SHORT. Yes, sir.

Chairman GLENN. In a multi-vendor environment like that envisioned for DISN, would the system integrators still put all that together? Would they play the key role in that?

General SHORT. Yes, sir. The systems integrator is the coordinator, and he is also the element that affects the cooperation that is absolutely essential amongst the various service providers on a solicitation of the type that we are seeking. So the systems integrator certainly is the lightening rod and brings it all together through coordination, cooperation and certainly the kind of oversight necessary to assure interoperability and continuity.

Chairman GLENN. DOD originally proposed implementation of DISN far-term ahead of the post-FTS 2000 initiative. DOD was proposing to use an integration support contractor to aid in identifying requirements and deciding on the appropriate strategy for network management. Is that in place? What is the status of that effort?

General PAIGE. No, sir. We delayed that contract award until such time as we get through the detailed planning that is necessary with GSA, and then we can decide whether we go with an integration contractor that will integrate not only those things that we get from the consolidated effort, but also those things that we bring from our own government-owned systems, such as DSCS and other communications capabilities, we might have a separate contract to do that. On the other hand, as we progress with the study with GSA, it might be possible to have one single contractor. We have not reached a decision on that, so we are holding.

Chairman GLENN. We had an industry day presentation last September, and as part of that industry day, we discussed the strategy for acquiring DISN in the far term. DOD noted it would be specifying levels of communications services and performance, rather than particular technologies. Obviously, they have to go together somewhat, but have those services and associated performance levels been identified and validated yet?

General SHORT. The communications services and performance requirements have been identified, and we have those now in a draft document for the DISN and CONUS. The primary services that were are speaking of, voice, data, imagery, dedicated transmission and wireless services, we are currently in the process now of validating these requirements through the joint staff and OSD. I would like to point out that the currently validated and operational requirements are being met by the systems that we have in being today.

Chairman GLENN. What is your timetable for release of those criteria for comment and for finalization?

General PAIGE. I would not like to give a timetable for it, because I would not want to release that until we have done all of the study that is necessary between GSA and DOD. The requirements that DOD has and those that the rest of the Federal Government sector have, the differences are primarily in band widths, data rates and that sort of thing. So the basic services I think are essentially the same. We have to address not only CONUS, but we have to address also what are we going to do outside of CONUS, are we going to bring that together also as a part of this integrated effort. There

is a lot of work, a lot of detail yet to be done, let there be no doubt about that.

Chairman GLENN. Booz Allen & Hamilton recently completed a benchmarking study of defense telecommunications, discussing the effect of military unique features—MUFs, as they are called—on communications service costs. They analyzed 24 MUFs, and found that 20 of 24 MUFs actually had commercial equivalents that appear to match or exceed DOD's functional needs.

I guess the first question would be do you agree with their results? Given these results, there appear to be opportunities to improve mission performance by tapping into the commercial market. Do you agree with their study? And how is DOD positioning itself to identify and exploit those opportunities?

General SHORT. Senator Glenn, we called for that study from Booz.

General PAIGE. And we paid for it.

General SHORT. I just want to point out that my organization and DOD certainly have and will continue to work closely with industry in the satisfaction of requirements. However, I would like to point out that in the past, some solutions to our requirements were not commercially available, causing DOD to create some specific specifications for industry.

I would like to also point out that today many of these special features are commercially available and will be obtained from the marketplace without the need for any of the unique requirements. Now, the four things that Booz Allen pointed out were multi-level precedence and preemption, denial of service, encryption and something we called HEMP, high-level electromagnetic pulse.

In fact, today only the denial of service and the preemption create any significant problem. HEMP is no longer being acquired, and multi-level precedence can be obtained through commercial solutions. We are looking into solutions now for preemption and for denial of service, and will make decisions as the technology evolves, based upon cost and risk. So I can say to you that, yes, there is some truth, a lot of truth in the Booz Allen study, but we have taken that and with the evolving technologies out there, I think that most of the features, with the exception of what I have mentioned, can be obtained through the marketplace, and we will continue to look at those that are creating concerns.

Chairman GLENN. Would the preemption you mentioned be during time periods of emergency, or would you have rules agreed to ahead of time as to when you would go into a preemption mode?

General SHORT. Yes, sir, your point is correct, but those were the two MUFs, military unique features that are of any concern to us now in terms of being readily available in the commercial market.

Chairman GLENN. The last question I wanted to ask, as a matter of fact, was what role do you anticipate the DOD megacenters to play in telecommunications, especially in an environment where civilian and DOD traffic will flow together? Do you see any problems there? You would work out a problem, where if you got into an emergency situation and had high traffic, you could preempt some of those facilities, I gather, is that correct?

General PAIGE. Well, the megacenters are used as data centers. They have huge computers that process data, legacy systems on a day-to-day basis——

Chairman GLENN. Megacenters are mainly data control points, rather than regular communications?

General PAIGE. That is right. I do not want to confuse them with the management control centers. The megacenters are users of the communications system. They use the communications system to interconnect between themselves and to connect them with the users that are connected to them.

I want to go back to the previous question relative to multi-level precedence preemption. I want to make it clear that today the users out there, the command and control users in the command centers around the world that have that multi-level presence preemption capability, it is our intent that they will still have that capability. We do not intend to lessen the quality of the service that we provide to them, nor the reliability or the availability of the service.

But we plan to do it today based on the technologies that are available today in software and provide that on a full-time basis where it is needed with the software. Only those users that need that will be provided with that capability and, of course, we will be looking at what does it cost to do that via a consolidated network, do we partition the network, or just how do we go about that. Those are some of the details that we will be looking at as we move ahead.

I think it is simple enough to go out and buy service in bulk, but still partition that service so that it meets the critical needs of the Defense Department or any other customer, any other user that is out there. That is why we in Defense are looking at others to jump on the bandwagon and join with us, as we move out with this consolidation and talk about global information infrastructures, National information infrastructures, and so on and so forth.

Chairman GLENN. Thank you very much, gentlemen. We appreciate both of you being here, Generals. We would appreciate an early reply to any additional questions we may have and we will include them in the record.

General PAIGE. We look forward to working with you. Thank you, sir.

Chairman GLENN. We appreciate your being here today. Thank you.

The next witness today is Bob Woods, Associate Administrator of GSA for FTS 2000. Bob has recently taken the reins of the program, after running the MS shop at Veterans Affairs. He has been a great help to the Committee in connection with its oversight efforts in the FTS 2000 program, where he provided needed and valuable input in our survey efforts.

We look forward to your testimony, Mr. Woods. I did not have the names of the people with you. Please introduce your associates, so we will have that for the record.

TESTIMONY OF ROBERT J. WOODS, ASSOCIATE ADMINISTRATOR, GENERAL SERVICES ADMINISTRATION; ACCOMPANIED BY WILLIAM P. CUNNANE, DEPUTY ASSOCIATE ADMINISTRATOR, AND BRUCE F. BRIGNULL, ASSISTANT DEPUTY ASSOCIATE ADMINISTRATOR

Mr. WOODS. Thank you, Mr. Chairman.

As you said, I recently joined the program and I have brought along the brains of the organization. Mr. Cunnane on my left, who basically runs the current FTS operation, and we believe has done a fine job there, and Bruce Brignull, on my right, who is involved with the post-FTS 2000 effort. They are heavily involved in the program.

Mr. Chairman, I would like to thank you for this opportunity to participate in this hearing, which addresses as topic of considerable and continuing interest to my customers, the Federal Government agencies. The General Services Administration would like to thank this committee, as well as other committees of the Congress, for your long and continuing interest in our program.

Today, FTS 2000 serves over 1.7 million users at thousands of locations across the Nation, its territories and its possessions. The program continues to respond to users' needs for additional features, as well as a vastly increased amount of traffic. In the first 5 years of the contracts, we have incorporated feature and service enhancements to address specific customer requirements, and have made these enhancements available to all of our customers.

FTS 2000 is meeting the increased user demand at or below market prices. This tremendous explosion of growth has occurred within an evolving framework of clear, consistent, and aggressive approaches to price management. By the end of the FTS 2000 contracts, GSA's price management will have resulted in an estimated $3 billion of savings to the Federal user and American taxpayers.

I would like to stray a little bit from my opening statement here. In GAO's remarks, we talked about overhead. We have successfully reduced that from the old FTS, which was around 15 percent, down to what I believe was referred to earlier as 10 percent, and it is now at 8 percent. We believe that we still have some things to do there, but we are aggressively managing that.

The active participation of the Federal agencies is required for both FTS 2000 and post-FTS 2000 success, in our opinion. A principle reason for the success of the program has been and continues to be the active participation and support from our users. During the last 6 years, GSA and the Federal agency users have built the Interagency Management Council (IMC) into a truly productive, pro-active set of advisors to the GSA Administrator.

The post-FTS 2000 environment will be built on the concepts that have made the current program so successful, as well as reflecting the continuing changes in telecommunications technologies, marketplaces and user requirements.

GSA and the IMC have developed an approach leading to the definition of a concept for the post-FTS 2000 environment. This approach was based on the premise that early and open discussion of requirements and acquisition strategies involving users, industry and other interested parties would significantly improve the resulting post-FTS 2000 concept. With that in mind, the IMC formed two

Subcommittees, which I am sure you have heard of, the Future Communications Services Working Group, which worked most on requirements, and the Acquisition Working Group, who just released their report on the possible acquisition strategies for post-FTS 2000.

The Future Communications Services Working Group was charged with the initial determination of user requirements and the assessment of telecommunications and applications technologies in the 1998 through 2008 timeframe. The Future Communications Services Working Group interviewed roughly 350 persons in Federal Government agencies, as well as 170 persons from 40 private sector organizations and academic institutions. The fundamental post-FTS 2000 requirement is the ability to provide telecommunications services through a mechanism flexible enough to adapt to changing technological, marketplace and regulatory forces.

The Acquisition Working Group was charged with defining an acquisition concept for the post-FTS 2000 environment which would build upon the findings of the Future Communications Services Working Group. The first action taken by the Acquisition Working Group was to seek the input from all interested parties, especially industry. Comments were sought through two mechanisms, a call for written comments and, second, a Concept Development Conference. At our October 1983 conference, the AWG and 500 observers heard from over 30 speakers representing a variety of carrier, integrator, academic, regulatory and congressional points of view.

Only after making a call for written comments and conducting this public conference, did the AWG define eight families of alternative telecommunications strategies. These families of alternatives represent a broad spectrum of possible post-FTS 2000 concepts. Again, all interested parties will have an opportunity to provide written or verbal comments before the Acquisition Working Group selects the post-FTS 2000 acquisition strategy.

As a result of a variety of factors, such as the Federal Government's experiences with FTS 2000, the changing telecommunications industry, emerging new technologies, and rapidly expanding and changing government requirements, as well as a commercial marketplace that is increasingly able to provide telecommunications services that meet DOD requirements, Administrator Roger Johnson and Assistant Secretary Emmett Paige took the initiative to evaluate our overall approach to providing telecommunications services. In February, Mr. Paige and Mr. Johnson directed the formation of the JCRC, the Joint Concept Review Committee, to determine if the post-FTS 2000 and DISN acquisitions could be consolidated.

Overall, the JCRC found no insurmountable obstacles, what we would like to call show-stoppers, to meeting the DOD's requirements in the post-FTS 2000 environment. The JCRC recognized that DOD's cost for intercity voice telecommunications could be reduced. The JCRC also found that a total set of government data communications requirements would represent a significant step towards establishing a government information infrastructure. The seeding of the government information infrastructure holds the potential for yielding significant savings on services provided from a common information infrastructure.

The JCRC recommended that the existing IMC post-FTS 2000 process already underway be the basis for that joint initiative. DOD is an original and continuing member of the IMC, and we would like to point that out, and is a member of the Future Communications Working group and the Acquisition Working Group. So there has been heavy involvement along the way, and we continue that relationship and think that we should forward it.

I would like to thank you for the opportunity to provide comment here this morning, Mr. Chairman, and welcome the Committee's interest in the continuing procurement of technically-effective, high-quality, and cost-efficient telecommunications services. We are looking forward to including your comments on our initiatives, as we further consider how to best meet our future challenges.

Mr. Chairman, this concludes my verbal statement. We have submitted a written statement for the record, and I would be pleased to answer any questions you or other members may have at this time.

Chairman GLENN. Your entire written statement will be included in the record.

[The prepared statement of Mr. Woods follows:]

PREPARED STATEMENT OF ROBERT J. WOODS

Mr. Chairman, Mr. Ranking Member and Members of the Committee: I would like to thank you for this opportunity to participate in this hearing which addresses a topic of considerable and continuing interest to my customers, the Federal Government agencies. The General Services Administration (GSA) would like to thank this Committee, as well as other committees of the Congress, for your long and continuing interest in the FTS 2000 Program. The successes enjoyed by the FTS 2000 Program owe thanks to these Congressional committees and their staff for their ongoing support and policy direction. We look forward to a productive exchange of ideas in these hearings today.

In your letter to the Administrator of General Services, Roger Johnson, you stated your purpose as the review of future government-wide telecommunications spanning a number of technology, marketplace, and policy concerns. As a result, this morning I will address three primary topics:

1. I will present the current status of the FTS 2000 Program, specifically how FTS 2000 is meeting increased user demand for quality telecommunications services, at prices that safeguard scarce taxpayer dollars.
2. I will address our plans and actions to date for providing our users with telecommunications services in the post-FTS 2000 environment.
3. I will offer comments on the addition of the Department of Defense (DOD) to this post-FTS 2000 environment.

THE FTS 2000 PROGRAM

Through the FTS 2000 services-based contracts, GSA provides to Federal Government users high-quality, modern telecommunications services at or below the best market prices. The FTS 2000 services-based acquisition concept, revolutionary at its inception, continues to reap benefits for Federal users and the American taxpayer.

FTS 2000 continues to respond to users' needs for additional features, as well as increased amount of traffic. Today, FTS 2000 serves more than 1.7 million users at thousands of locations across the Nation, its territories, and possessions. Currently, FTS 2000 carries about 350 million minutes of voice traffic each month (including fax and modem-based data traffic). This is almost three times the 1987 projections and reflects increased user demand, as well as use of advanced features provided by FTS 2000. The Internal Revenue Service and Social Security Administration deliver services to citizens every day on FTS 2000 using two of the world's largest 800 service networks, one provided by Sprint, the other by AT&T. FTS 2000 is currently providing 16 times more dedicated transmission services than projected in 1987. The FTS 2000 services are providing user agencies with capabilities to do their jobs efficiently and economically.

FTS 2000 continues to strive to keep pace with users' requirements. In the first 5 years of the contracts, we have incorporated feature and service enhancements to address specific customer requirements, and have made these enhancements available to all customers. Within the scope of the contracts, we have worked hard to evolve the service offerings to meet current user needs and to anticipate future needs and technology advances. Overall, FTS 2000 has achieved a level of service and quality commitment unparalleled within the Federal arena for an undertaking of this magnitude and far-reaching importance.

FTS 2000 is meeting the increased user demand at or below market prices. This tremendous explosion of growth has occurred within an evolving framework of clear, consistent, and aggressive approaches to price management. The initial competition for awards established a 10 year baseline of fixed prices for advanced telecommunications services. In addition to the initial competition, FTS 2000 has built-in price redeterminations at contract years 4 and 7 that require the two FTS 2000 contractors to compete head-to-head again. The year 4 price redetermination alone resulted in $450 million of additional savings to the American taxpayer. Using publicly available price comparisons, FTS 2000 prices are managed to ensure that prices stay at or below market prices. By the end of the FTS 2000 contracts, GSA's price management will have resulted in an estimated $3 billion of savings to the Federal user and American taxpayer.

The active participation of Federal agency users is required for FTS 2000 and post-FTS 2000 success. A principle reason for the success of the FTS 2000 Program has been and continues to be the active participation and support from our users. During the last 6 years, GSA and the Federal agency users have built the Congressionally-mandated Interagency Management Council (IMC) into a truly effective, pro-active set of advisors to the GSA Administrator. The IMC has played major roles in the current FTS 2000. For example, the IMC helped to shape and solve such issues as price management, new features, price redetermination, billing management, and network management. In the future, the IMC will continue its active participation in issues such as the year 7 price redetermination, the continued inclusion of new features reflecting advancements in technology, and the definition of the post-FTS 2000 environment. The FTS 2000 Program is much stronger and effective because of the user participation provided through the IMC.

2. POST-FTS 2000 INITIATIVES

The post-FTS 2000 environment will be built on the concepts that have made FTS 2000 successful, as well as reflecting the continuing changes in telecommunications technologies, marketplaces, and user requirements. At the March 1993 meeting of the IMC, the need to begin planning for the post-FTS 2000 environment was identified. During that meeting, the IMC members reviewed the fundamental and successful FTS 2000 principles on which the post-FTS 2000 environment would need to be built. These fundamental principles are:

- Use competitive market pressures with more than one contractor
- Use the commercial telecommunications marketplace to procure services that satisfy user requirements
- Deliver high quality services, at or below market prices
- Allow for the improvement of services over the life of the service contracts to meet evolving user needs and to reflect additions to the commercial marketplace of advancing technologies
- Ensure the active involvement and participation of agency users through the IMC

In the weeks immediately following that March 1993 meeting, GSA and the IMC developed an approach leading to the definition of a concept for the post-FTS 2000 environment. This approach was based on the premise that early, open discussion of requirements and acquisition strategies involving users, industry, and other interested parties, including this Committee and other committees of the Congress, would significantly improve the resulting post-FTS 2000 concept. With that in mind, the IMC formed two Subcommittees: the Future Communications Services Working Group and the Acquisition Working Group.

The fundamental post-FTS 2000 requirement is the ability to provide telecommunications services through a mechanism flexible enough to adapt to changing technological, marketplace, and regulatory forces. The Future Communications Services Working Group was charged with the initial determination of user requirements and the assessment of telecommunications and applications technologies in the 1998 through 2008 timeframe. Under the leadership of Dr. John OK, Deputy Assistant Secretary for Information Resources Management at the Department of

Agriculture, the Future Communications Services Working Group interviewed 350 persons in Federal Government agencies, as well as 170 persons from 40 private sector organizations and academic institutions. The Future Communications Services Working Group report, entitled Networking for a Reinvented Government: Federal Telecommunications Requirements and Industry Technology Assessment and released publicly in November 1993, presented the group's major themes as:

- The telecommunications requirements of the Government are, and will remain, extremely broad in nature and varied in detail. Further, for the period 1998–2008, these requirements can be predicted only very approximately, both in quantity and in type.
- Government budgets will be severely constrained for years to come, while demands on the Government to provide services to the citizens are likely to increase. Significant re-engineering of the way in which Government performs its functions is likely. The national Performance Review is an early indication of possible changes.
- Telecommunications technology and services, and the telecommunications industry itself, have been undergoing rapid and profound changes in the past several years. These changes will continue and possible intensify in the years ahead.

Early and open discussion with users and industry will improve the post-FTS 2000 concept. The Acquisition Working Group was charged with defining an acquisition concept for the post-FTS 2000 environment which would build upon the findings of the Future Communications Services Working Group. The first action taken by the Acquisition Working Group was to seek input from all interested parties, especially industry. Comments were sought through two mechanisms.

First, a call for written comments was made in July 1993 and will continue through concept definition in October 1994. To date, we have received comments from 25 interested parties. As written comments are received, they are placed in our publicly available Concept Development Record. This Concept Development Record, similar to the record established for an administrative rule making setting, documents all comments received by GSA and analysis performed by GSA and the IMC's supporting working groups. To ensure ease of access and receipt of comments, we are currently working to make the Concept Development Record available via the Internet.

Second, a Concept Development Conference was held to seek verbal comments from interested parties and nationally-known experts in telecommunications technologies, marketplaces, and regulation. At this October 1993 conference, the Acquisition Working Group and 500 observers heard from over 30 speakers representing a variety of carrier, integrator, academic, regulatory, and Congressional points of view.

Only after making a call for written comments and conducting this public conference did the Acquisition Working Group begin to define alternative acquisition strategies. During the past December, January, and February, the Acquisition Working Group defined alternative telecommunications acquisition strategies. The alternatives were documented in a report entitled *Post-FTS 2000 Acquisition Alternatives White Paper*. This white paper defines eight families of alternative telecommunications strategies. These families of alternatives represent a broad spectrum of possible post-FTS 2000 concepts. Seeking additional comments from vendors, users, and other interested parties, the Acquisition Working Group publicly released the *Post-FTS 2000 Acquisition Alternatives White Paper* in April.

We will respond to clarification questions asked by industry over the next 2 months. In the meantime, we have begun to analyze these eight families of alternatives. We will release the results of this analysis in August of this year. At that time we will again seek comments and suggestions from vendors, users, and other interested parties via written comments to the Concept Development Record. We will again accept verbal comments in open meetings of the Acquisition Working Group during 3 days in September.

Only after all interested parties have had the opportunity to provide written or verbal comments will the Acquisition Working Group select the post-FTS 2000 acquisition strategy. A recommendation from the Acquisition Working Group in October will allow sufficient time to prepare any request for proposals that may then be needed. We have announced a schedule that allows sufficient time to make awards, let me emphasize 'awards' plural, and to plan for transition recognizing that the current FTS 2000 contracts end in 1998. This schedule should be considered tentative pending the selection of the post-FTS 2000 acquisition strategy.

3. MEETING DEPARTMENT OF DEFENSE REQUIREMENTS IN THE POST-FTS 2000 ENVIRONMENT

Participation in the post-FTS 2000 environment will afford DOD lowest priced, effective telecommunications through the use of commercially available services. As a result of a variety of factors, such as the Federal Government's experiences with FTS 2000, the changing telecommunications industry, emerging new technologies, and rapidly expanding and changing government requirements, as well as a commercial marketplace that is increasingly able to provide telecommunications services that meet DOD requirements, Administrator Roger Johnson and Assistant Secretary Emmett Paige took the initiative to evaluate our overall approach to providing telecommunications services. In February, Mr. Paige and Mr. Johnson directed the formation of the Joint Concept Review Committee to determine if the post-FTS 2000 and Defense Information System Network acquisitions could be consolidated.

The Joint Concept Review Committee, whose membership consisted of GSA, DOD, and IMC representatives, examined a number of technical, economic, and administrative issues, including:

- Specialized requirements of both defense and civilian telecommunications users
- Competitive impacts on any acquisition strategies
- Cost
- Crisis response capabilities
- Requirements for State and local Government interoperability
- Assuring availability of advanced features and new technologies

The Joint Concept Review Committee prepared a report that documents their findings and recommendations. Members of the Joint Concept Review Committee recognized that any procurement actions taken by the Government would most likely result in multiple contracts, thereby maintaining the competitive aspects of the current FTS 2000 programs. Overall, the Committee found no insurmountable obstacles to meeting the DOD's requirements in the post-FTS 2000 environment. The Joint Concept Review Committee recognized the challenges to be addressed including:

- Minimizing the complexities of management and oversight
- Maintaining aggressive competition
- Assuring interoperability of systems and services

With respect to cost, the Joint Concept Review Committee recognized that DOD's cost for intercity voice telecommunications will be reduced. The Joint Concept Review Committee also found that a total set of Government data communications requirements would represent a significant step towards establishing a Government Information Infrastructure. The seeding of the Government Information Infrastructure holds the potential for yielding significant savings on data services provided from a common infrastructure.

The Joint Concept Review Committee recommended that the existing IMC post-FTS 2000 process already underway be the basis for the joint initiative. These IMC processes, including the Future Communications Services Working Group, the Acquisition Working Group, and the day-to-day working teams, involve the participation of all user agencies, including the DOD. DOD is an original and continuing member of the IMC, the Future Communications Services Working Group, and the Acquisition Working Group.

The Joint Concept Review Committee also recommended that an independent Technical Advisory Board of nationally recognized telecommunications experts review the Joint Concept Review Committee's report and conclusions. GSA and DOD are proceeding with the establishment of this review board.

In light of the Joint Concept Review Committee recommendations and pending the results of the Technical Advisory Board review, we are already working together. Clearly, there are business reasons related to increased quality of service offerings available to users, flexibility in meeting user needs and missions, and lower costs that justify us beginning to work together. Secretary Paige and my boss, Roger Johnson, have indicated their support for this initiative. The agency representatives to the IMC have also indicated their support. The commitment is evident, and I will work hard to carry forward this endeavor.

I thank you for the opportunity to provide comment here this morning and welcome the Committee's interest in the continuing procurement of technically-effective, high-quality, and cost-efficient telecommunications services. We look to including your comments on our initiatives as we further consider how best to meet our future challenges. I look forward to providing any information I can to aid the Committee as it addresses the implications of our undertakings.

Chairman GLENN. The JCRC concluded that there were no overwhelming issues or combination of issues that represent an insurmountable obstacle to the consolidation of civilian and military telecommunications acquisitions. Some significant issues exist, and some of those may involve the nature of military unique requirements. Is GSA working those through the JCRC, are you addressing that individually, or how are you going to take care of these matters with the military?

Mr. WOODS. We probably should state at this time that the JCRC essentially was an ad hoc committee set up specifically to look at the consolidation. The consideration of the future requirements issues will be handled by the AWG, the Acquisition Working Group, as we work through our process over the next few months.

We are not only dealing with DOD's unique requirements. I might State that they are not the only ones with unique requirements. There are a number of agencies that also have requirements that do not fit the mainstream, we do have that issue, as we go forward.

But we are working with the users in the Acquisition Working Group. We will be working through those business areas that we feel are productive. There will be some that obviously will not be and will be procured in a manner that is unique probably to that organization. So we are not going to try to be all things to all organizations. We will pick those business areas that make the most sense to combine, and we will move forward from there. So we will continue the studies and the analysis, to make sure that there is a good business case for the combination.

Chairman GLENN. General Paige mentioned this area of unique service is probably one that is going to expand, too. I think that is what he was alluding to a little while ago when he said this is not just the military, it is economic. We need to be concerned about the hackers getting into databases so we are going to need requirements and standards. Are you prepared to address all of those things, too?

Mr. WOODS. Mr. Chairman, we are prepared to do that, but I would add to that that things like security are becoming issues that we have to address across the board. Although defense security requirements are probably some of the most stringent in government, we have also got security requirements in the financial community. We, you may know, we are embarking on a fair amount of outreach to our citizens, and as we do more of that and we deal with issues of citizen privacy data, we will have to deal with security across the board.

We believe that we are going to have to analyze those requirements in some depth, and we believe security requirements are expanding across the board, DOD and civilian agencies, as well.

Chairman GLENN. Given the size and complexity associated with combined acquisitions like this, what will GSA's role be in managing the process and ensuring that GSA's timeframes for contract award are met?

Mr. WOODS. I might say that the Administrator of GSA, under the provisions of the Brooks Act, will remain responsible for the procurement of telecommunications services for Federal Government users. However, as was noted in the GAO testimony, to be

successful, we must involve all our users in this process. So the IMC type process we think is critical to managing this program well.

In addition, as you have seen, we have formed two Subcommittees that have been extremely active, one dealing with the future requirements and one dealing with the acquisition strategy itself. So the agency personnel are working with us on a day-to-day basis to be sure that their requirements are met.

As you mentioned in the opening comment about me, I have spent some time in agencies and was a very active agency customer that pushed the program to meet the needs. So we are very much in tune with that, and we understand that those requirements have to be met across the board in order to be productive.

Chairman GLENN. The success of interoperability in a multi-vendor environment is going to hinge on having some very clear standard based requirements. What steps have you taken to identify those? Where do we stand with the establishment of such standards?

Mr. WOODS. I think the answer is yes to both alternatives to some degree. We are handling the agency's needs through the IMC mechanism and getting input from them to be sure their requirements are met, and that we understand their interoperability requirements.

As one of the earlier witnesses mentioned, we have more and more need to interact with State and local government, as we look at reinventing. So the interoperability extends beyond the Federal establishment.

We will work with the IMC and its Subcommittees to be sure that those standards issues are dealt with and, more importantly, the functional interoperability issue is dealt with, and we are keeping the door open for industry to come in with comments and to provide input to that as we go along. So we are going to try to stay in the mainstream of what is available in the industry, but still push the interoperability requirements, because we think they are real.

Chairman GLENN. Has GSA developed any evaluation criteria to judge the strengths and weaknesses of alternative strategies since there are several different ways we can approach this communications problem.

Mr. WOODS. Yes.

Chairman GLENN. How do you judge those things? Do you have the criteria developed for that?

Mr. WOODS. We have started the process. We are not complete. But some of the criteria that have surfaced so far in the workings with the Acquisition Working Group, the criteria that have surfaced so far that are important in the judging of a future acquisition strategy include such factors as maximizing adaptability and flexibility, providing easy access to a broad telecommunications marketplace, providing competition and maximizing its benefits, maintaining state-of-the-art telecommunications services, providing access to external organizations such as the State and local governments we have mentioned, and provide a significant degree of integration and interoperability.

So factors like that, along with reliability and performance and a simple pricing structure, have surfaced as potential criteria so far. We do not think that is a complete list. It is still fairly early in the analysis. But those type of factors will be used in judging our acquisition approach.

Chairman GLENN. In looking at this and thinking of some of the problems we had in the original implementation of FTS 2000, we got ourselves stuck in that contract in a rapidly changing market. At that time we said we are going to force everybody in, and this committee in fact played a role in doing exactly that, to the dismay of some people across government that still have not gotten the word to this day, I am afraid. But we forced everybody into a buying net that we thought was going to give us a big advantage, and it has to some extent.

But I think when we are considering the follow-on to FTS 2000, we really have to consider whether, in a rapidly changing environment, how much of this we can contract for government-wide, where every department and every agency has got to be part of it. You cannot go out and do your own contracting. On the other hand, we do not want every contractor traipsing into every office all over Washington. That would be an extremely wasteful thing from everybody's standpoint, including the government.

But you could have, say, a one-stop shopping center, where somebody keeps up with all the advantages of all the new technologies and makes that the place where agencies come to see what is available in the marketplace and then does their contracting. Now, those are basically different concepts. I am not suggesting one or the other. I am just suggesting that at this point when we are talking about follow-on to FTS 2000, that something like that should at least be considered. Now, are you considering something that basic?

Mr. WOODS. We are considering it, and the Acquisition Working Group's report that just came out recently defined eight families of alternatives, and that approach of multi-contracts dealing either with span of service or functional requirement or even region of the country type approach. They are listed in there and they are basic to the consideration.

We agree that the environment for the next 10 years after FTS 2000 is going to be considerably different than the environment we entered into in this contract. I might say that I believe, in spite of the warts on this program as we went along, I am not sure how well we could have transitioned from old FTS without some type of incentive and some type of encouragement for Federal agencies to do that. It is a somewhat painful process to transition, and we went through that, and I think most Federal agencies would today say that was well worth doing.

But I believe that the next FTS, we are going to have to deal with the flexibility issue that the agencies need and deal with the rapidly changing workplace and marketplace.

Chairman GLENN. How do you do that in a rapidly changing technological environment? With FTS 2000, we had lots of whistles and bells attached like teleconferencing and video conferencing, and these were options people could sign up for. But just requiring

the option meant that the costs run up a little bit just by consideration of the option, whether the buy took that option or not.

As technology moves ahead now, how do we make contracting that is binding, and yet flexible enough that we can take advantage of these new things as they come on the scene?

Mr. WOODS. Without biasing the outcome of the acquisition strategy, I would have to say that it would suggest that you do more contracts and shorter-term contracts. But because the services vary from very mature type services like voice services, switch voice to video conferencing and other services that are not as mature, I think it would vary the type of service. They are factors that we are going through now. They are factors that the work group is working through, and they do not have an easy job.

Chairman GLENN. But the shorter the contract, probably the less advantage price-wise you are going to have.

MR. Woods. The shorter the contract, the closer you can follow the market, but the less stability you get. You do not get the long-term arrangement with a vendor. So we are going to have to trade off the agency mission needs, we are going to trade off price, and we are going to have to trade off flexibility, and those are going to be the factors that have to come into play.

Chairman GLENN. General Paige and General Short indicated just a moment ago that they are into this. They see their role expanding in this, and I was glad to hear them testify to that effect.

Are you also looking at such things as new weapons systems, satellite systems requirements to communicate with those systems in the field as part of this net, or will that be solely a DOD function?

Mr. WOODS. We have not fully decided that, or at least I have not come to that conclusion, but my sense is there will be some DOD unique requirements that obviously will be outside the turf we are interested in.

Chairman GLENN. My time is up on this round. Thank you.

Senator Roth?

Senator ROTH. Thank you, Mr. Chairman.

I do have an opening statement that I would ask be included in the record.

Chairman GLENN. It will be included in the record.

Senator ROTH. Thank you.

[The prepared statement of Senator Roth follows:]

PREPARED STATEMENT OF SENATOR ROTH

Mr. Chairman, I want to commend you for scheduling today's hearing on government-wide telecommunications policy. Like you, I believe that the continued maintenance of a government-wide telecommunications system is of critical importance to the development of our nation's telecommunications policy.

As we all know, the telecommunications marketplace is incredibly dynamic. These market dynamics are bound to affect the structure of government telecommunications needs, as well as the breadth of its requirements. Thus, as the marketplace changes, so will agency needs and demands. Significantly, the acquisition process needs to take into account the increasingly shorter technology life cycle that applies to telecommunications products and services. In my view, the long run uncertainties of the marketplace demand maximum flexibility in the acquisition process and in the crafting of a post-FTS-2000 telecommunications policy.

During the next decade, it is likely that major changes will continue to occur in the composition and business practices of the local and long-distance markets. The emergence of new technologies and the potential for increased competition by virtue

of the elimination of local access monopolies will undoubtedly create new opportunities for significant cost savings and improved services in the post-FTS-2000 environment. Importantly, federal telecommunications policy must remain flexible enough to allow technical and service enhancements during the life of the program as needs change and technology develops.

Mr. Chairman, I believe this is a critical time for these discussions. Both the civilian and defense sides of the government are formulating their acquisition strategies for follow-on systems. And like you, I believe that improvements can be made in the process by which the government acquires telecommunications services and products. For example, telecommunications requirements may be better identified in terms of desired performance characteristics, as opposed to just technical or hardware specifications. In addition, the proposed consolidated acquisition of civil and defense requirements may provide for substantial cost-savings.

Mr. Chairman, you and I have worked together for many years in an effort to reform the government's buying system. Over that time, we have made a good deal of progress, though in my view, there is always room for more. As you and I both know, absent meaningful reform, the federal government cannot make major reductions in the cost and time it takes to field a technology. Until the buying system is changed, the results won't change. Last week, I was pleased that we made what I believe is significant progress in this area through Committee passage of the Federal Acquisition Streamlining Act. Today's hearing on government-wide telecommunications policy is another step in the right direction and I look forward to hearing from our distinguished witnesses on this subject.

Thank you, Mr. Chairman.

Senator ROTH. One question I would like to ask is—we all know the critical importance of telecommunications to our economy, our growth, our role in the global economy. Do you see FTS 2000 having a favorable impact on our telecommunications industry? Are we behind the curve in what we do in government, or are our contracts helping our industry lead the way?

Mr. WOODS. Senator, I believe that we have services under contract today that are as modern as any that the industry itself has got to offer. I believe we are getting those services at or below market prices. But I think we also are providing some leadership role and some basis for what will become the government information infrastructure and the basis of the National information infrastructure.

The NII is an extremely broad concept, as you are aware. It includes everything from the physical part of the networks to the services that are provided and the information that flows across that. We believe that this is the government's information infrastructure on a broad scale, and that we should use that opportunity in the post-FTS 2000 and to use it in the current FTS 2000 to encourage the development of a government information infrastructure.

Twenty percent of the current traffic on FTS is outreach to the public, is citizen type services, the Social Security 800 service, the IRS type services. So we believe that that information infrastructure that is depicted in NPR and other parts of reinventing government are already under way and have started. They are not as broad as they could be, but they are started.

Senator ROTH. The National Performance Review, the Vice President's reinventing government study initiative, has that exercised any influence on FTS 2000?

Mr. WOODS. Yes, sir. In fact, there was an earlier question about OSTP's involvement. There is a fairly tight interconnection between the NPR activities. We have a government information technology services group, the GITS work group that oversees what is

going on in the information business inside the Federal Government. I sit on that group. Its chairman, Jim Flyzik, from Treasury, sits on the IMC. We have a very close interworking relationship there.

So it has had an influence not only in the types of services we provide, in effect that we were doing some of it before we got into NPR, but we are working very closely together to look at what ways to foster E-mail across government, to look at electronic commerce and those types of services. So it has had an influence, it is in fact part of what we are using to shape our current services.

Senator ROTH. One of the things that bothers me is that this is such a fast-changing industry and, consequently, as you have said, flexibility is critically important.

Mr. WOODS. Right.

Senator ROTH. But I find it hard to reconcile 10-year contracts with this fast-changing industry, where 1 year means a lot of difference. Does that make sense?

Mr. WOODS. It keeps me awake nights, also. I might say that Bill Cunnane, who manages our current network, is here and I would ask Bill to comment, because he has had to make this contract change and move and fit as we have gone through this long-term contract, and I think Bill's comments might be helpful.

Mr. CUNNANE. Senator Roth, in the present contract we do have the ability to make modifications and bring the new technology on as our agencies require that to meet their mission needs. It takes us a long time. These are mini procurements done within the framework of the large contract.

I think the key to the future will be how quick can we make changes to a contract. Certainly, with shorter contract times, if you do not meet those needs, you have option years, you either can extend or you can find the new service. I think that has to be a tool that will be used.

Also, there may be a little change in the procurement way we would approach making modifications to bring it onto contract, that it would not take us a year and continue to keep us behind the curve. We do not spend any money that goes into research and development today. We are expecting the service and receive the service that is being delivered to the commercial marketplace today. So from a driving force of the industry, we think we are a big player from a usage standpoint, but we do not believe we are driving research and development.

The future, though, in the information highway we very well could be a driver with us in GSA and DOD cooperating together. I think we can drive a lot of the factors that will go into the National Performance Review and the information infrastructure.

Senator ROTH. That is the question I wanted to raise, and I am not sure what the answer is or should be. If we are just following behind the curve and trying to get as close to it as possible, are we missing an opportunity? I cannot think of any area of economic activity more important to the economy of this country and its growth and the creation of jobs. I just wonder, here we have this tremendous customer, the largest in the world, and can it be better utilized in trying to springboard ahead? I think that is something we ought to study and address.

Mr. CUNNANE. I agree with you, Senator. I think it will be the future and post-FTS 2000 would be the appropriate tool, rather than the present contract that we are living within. We have 4 more years to go, but I believe the Acquisition Working Group is looking to see how we can at least stay even with the marketplace and possibly spring forward, rather than be tailing behind a year or two.

Senator ROTH. Mr. Chairman, I thank you for holding these hearings. I think they are critically important.

Chairman GLENN. Thank you, Senator Roth.

Given the breadth of options available in the commercial market, agencies more than ever need to identify and link services required to their missions. DOD has some very special needs, obviously, but we are getting more specialized needs in other departments of government, too. Now, we are going to have some core activities that are going to be common to everybody. How many of these spinoff activities are we going to be able to take care of under a follow-on FTS arrangement, as opposed to them going off on their own? Do you have a feel for that yet, or is that still to be worked out?

Mr. WOODS. I think it is still to be worked out, but I would also have to report to you that, in our looking at unique needs, they are sometimes in the eye of the beholder. We see some unique needs out there that we obviously would not want to get into the business for everybody and have everybody pay the cost for a very specialized unique need.

On the other hand, when you get into agencies such as FAA or such as Treasury with their financial needs, believe me, they have fairly high security needs, reliability needs, and their interest in the technology is out on the leading edge. So we believe that we have to settle it as we go through, we have to be realistic about where there is a need for joint effort, but I also believe we may be surprised at how much our requirements look alike as we get into them. But it is an analysis we need to do, we need to do it in depth, and we need to be sure of where we are headed, so we keep the risks down. We are not interested in combining things for the sake of combining them. We are interested in getting the best deal for the taxpayer.

Chairman GLENN. In a multi-vendor environment like that envisioned for DISN, what role do you envision for system integrators? We talked about that a little bit ago with DOD.

Mr. WOODS. First of all, the function has to be done by someone. When you are dealing with vertically functional systems, what we often call stovepipe systems that follow program lines, someone has to be able to integrate across program lines and across agencies. Our believe is that systems integration will have to be done by someone.

Now, that does not mean that you have to hire them as a separate entity. It may mean that you decide, once you look at the business opportunity, that that is the best way to do it. But we believe the function of systems integration has to be done, and the question becomes what is the best way of doing that. I believe Defense has found, as many of us have found, that you are often better to go out and contract for that separately and do that with an industry that is used to doing it.

But systems integration will have to be done. When we get through with this Acquisition Working Group's efforts, there will have some sense of that. That is one of the options being considered in the eight families of alternatives.

Chairman GLENN. You mentioned the megacenters a little while ago. What role do you anticipate DOD megacenters to play in telecommunications, especially in an environment where civilian and DOD traffic will flow together? Do you see any problems in that area?

Mr. WOODS. My biggest concern about megacenters is being sure that we have scoped them properly in terms of their needs, and that we have laid requirements out well in advance, so that they were prepared for the kinds of traffic flows they have. DOD, as well as the Department of Agriculture's Finance Center in New Orleans, the IRS' national Computing Center in Martinsburg, West Virginia, all represent large computing centers that are going to have to be sized to handle and now what they will need and when they will need it. But my sense, Mr. Chairman, is that is well within our capabilities to handle.

Chairman GLENN. You indicated a little while ago also that you are in close touch with the OSTP people, I believe, is that correct?

Mr. WOODS. I am sorry, I did not say that. We are working almost one layer away from them. The Information Infrastructure Task Force that Secretary Brown at Commerce chairs is closely linked in with that. One of his Subcommittees is this GITS Group, this Government Information Technology Services Group. I sit on that group, and we are really doing our integration through them. We are not doing it directly with OSTP. We are doing it by both of them sitting on Secretary Brown's group.

Chairman GLENN. I do not want to force more committee members, but I also do not want to see us go into the post-FTS 2000 environment and all of us feel we are moving in a certain direction, and all at once find out that we are counter to the plans they have in the NPR and we have to adjust. I would hope that we are keeping a close enough liaison with those folks. I presume DOD is. You are a big frog in this pond, and I would hope that you are keeping in close touch with them and keeping them advised. I would think some cross-membership back and forth might be advisable.

We had some problems with FTS 2000 that were not all of our own making. But we worked through the problems and I think came out with some good done with that whole effort, no doubt about that.

Now as we move on to the next generation of whatever it is going to be, it just seems to me we should learn from our past mistakes and get everybody involved with this as much as we possibly can.

I have no more questions. Do you have any other remarks you want to make? Mr. Brignull, you have been very quiet this morning.

Mr. BRIGNULL. No, thank you.

Mr. WOODS. I would close, Mr. Chairman, by saying that I believe the current efforts between us and DOD are productive and we are doing the right things there. I think the difficult thing to

predict is exactly what are the right business areas for us to combine, and I assure you over the next few months we will determine those and make those happen.

Chairman GLENN. That is great. The working groups that you have formed is something we did not do, not to this extent, at least, back when FTS 2000 was put in. We thought the communications industry, while it was moving ahead, was static enough, that if we just forced everybody into it we were going to have a pool that could just drive prices down. Then the technology and the industry itself got ahead of what we were trying to provide.

I want to see us keeping enough flexibility this time that we make sure that we can take advantage of whatever changes there are. Maybe there will not be any. But if there are, we want to take advantage of them and not get caught in the same trap all over again.

Thank you all very much.

The hearing will stand in recess subject to call of the Chair.

[Whereupon, at 11:15 a.m., the Committee was adjourned, subject to call of the Chair.]

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S. 2195, THE NATIONAL PUBLIC TELECOMMUNICATIONS INFRASTRUCTURE ACT OF 1994

HEARING

BEFORE THE

SUBCOMMITTEE ON COMMUNICATIONS

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

JUNE 22, 1994

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S. 2195, THE NATIONAL PUBLIC TELECOMMUNICATIONS INFRASTRUCTURE ACT OF 1994

WEDNESDAY, JUNE 22, 1994

U.S. SENATE,
SUBCOMMITTEE ON COMMUNICATIONS OF THE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:35 a.m., in room SR–253 of the Russell Senate Office Building, Hon. Daniel K. Inouye (chairman of the subcommittee) presiding.

Staff members assigned to this hearing: John D. Windhausen, Jr., senior counsel, and Sheryl J. Wilkerson, staff counsel; and Regina M. Keeney, minority senior counsel, and Mary P. McManus, minority staff counsel.

OPENING STATEMENT OF SENATOR INOUYE

Senator INOUYE. This morning, the subcommittee has an opportunity to address an issue that forms the foundation of our Nation's communication policy—protection of the public interest. As we are all aware, the communications industry is undergoing tremendous change. Each day a new product or service emerges on the information superhighway or the national information infrastructure. Most of the talk about the NII and the superhighway has focused on competition and corporate interests. I believe more attention should be given to the social benefits and public interest needs of the information highway.

I believe that we should do more to protect the very principle upon which our communications policy was founded. That is why I introduced S. 2195, the National Public Telecommunications Infrastructure Act of 1994. S. 2195 would guarantee that noncommercial and public interest groups are reserved a place on the information highway. The bill would require telecommunications networks that use public rights-of-way to reserve capacity for certain entities for the provision of free educational, informational, cultural, civic, or charitable services to the public.

The bill directs the Federal Ccommunications Commission to determine the amount of capacity and to establish guidelines for allocating the capacity. It also directs the FCC to establish a fund so that eligible entities will have the economic support they need to use the reserved capacity. The set-aside requirement contained in the bill is not permanent. The bill allows for the reduction or elimi-

nation of the set-aside when telecommunications facilities have sufficiently open architecture and capacity.

Approximately 100 public interest, broadcasting, educational, library, civic, and cultural groups have expressed their support for the bill. They believe that the legislation would ensure their full participation on the information superhighway.

I realize that the legislation raises several constitutional issues that are of concern to the telecommunications industry. The American Law Division of the Congressional Research Service recently conducted a preliminary analysis of the bill and concluded that, if challenged, the proposal is likely to withstand constitutional review by the courts. Mr. Chairman, your comments, please.

OPENING STATEMENT OF SENATOR HOLLINGS

Mr. CHAIRMAN. Good morning. Last month the Commerce Committee completed its ninth hearing on S. 1822, the Communications Act of 1994. The focus of that hearing was education and the need to improve access and delivery of information for educational purposes. During the hearing several witnesses voiced concerns about the need to ensure that educational institutions have access to the information superhighway. Several witnesses also requested that the committee hold an additional hearing to explore the various means by which these institutions and other noncommercial entities could be guaranteed access on telecommunications networks that use public rights-of-way.

I am pleased that Senator Inouye has taken up the call and has introduced a new bill directly on this topic. I am also pleased that he has chosen to hold this hearing so that we may explore the issues in this legislation before the committee considers S. 1822.

S. 2195, the National Public Telecommunications Infrastructure Act of 1994, addresses many of the concerns that were raised by Secretary of Education Riley in his testimony on S. 1822. The legislation is intended to ensure that telecommunications networks that make use of public rights-of-way set aside a portion of their network capacity for noncommercial, educational and civic entities. S. 2195 would guarantee that the interest of the public is not left behind.

Many States, including South Carolina, have been making significant investments in technologies that will benefit their communities. The South Carolina Educational Television Network is a perfect example of how the educational possibilities of the information superhighway benefit South Carolina residents. The network provides telecommunications services to State agencies and citizens with cultural, educational, and civic information. With the assistance of designated capacity on public networks, services like these could be available to all citizens nationwide.

We have a number of witnesses here this morning. I am pleased to see that Henry Cauthen, a dedicated member of the public broadcasting community and one who has done much for the State of South Carolina, is a part of today's panel. I welcome all of you and look forward to your testimony.

Thank you, Mr. Chairman.

Senator INOUYE. Thank you, Mr. Chairman. Dr. Monroe Price, a distinguished professor from the Benjamin N. Cardozo School of

Law is participating on our panel today and will provide some additional insight on these issues.

I also plan to meet with Senators Hollings and Danforth soon to discuss ways in which this bill might be incorporated in S. 1822, the Communications Act of 1994.

This morning we have a very distinguished panel of witnesses, and I would like to extend a very special welcome to the Honorable Carol Fukunaga, a State senator from my home State of Hawaii, and to Harry Cauthen, who is from Senator Hollings' home State of South Carolina. Representatives of the telecommunications industry, the FCC, and the administration were invited to testify at this morning's hearing, but due to various circumstances could not attend. I have invited them; however, to submit testimony for the hearing record.

Again, I thank the witnesses for their participation, and look forward to hearing their testimony. Our first witness will be the Honorable Carol Fukunaga of the Hawaii State Senate, who also chairs the communications committee of the State and Federal Assembly for the National Conference of State Legislatures. Senator Fukunaga, welcome.

STATEMENT OF HON. CAROL FUKUNAGA, HAWAII STATE SENATE; CHAIR, COMMUNICATIONS COMMITTEE, STATE AND FEDERAL ASSEMBLY FOR NATIONAL CONFERENCE OF STATE LEGISLATURES

Ms. FUKUNAGA. Good morning. This is a rare privilege and opportunity to appear before you, Senator Inouye. As you know, at the State level we have long been very interested in telecommunications concerns, particularly since Hawaii is so far and so distant from Washington, DC. And I really appreciate the opportunity to appear before you this morning.

I am here in my capacity as chair of the National Conference of State Legislatures Communications Committee, and you have my written testimony so I would like to highlight just a couple of points.

With respect to universal service issues, NCSL in particular supports the provisions of this bill wherein the FCC's allocation of public capacity shall be pursuant to telecommunications plans that are developed by State, local, or tribal governments. We believe that this provision is similar to some of the State delegation provisions on universal service in S. 1822, which is presently before this committee, and we do appreciate the acknowledgement in your bill that States are in often the best position to determine how best to meet the unique needs of individual regions and geographical areas.

Second, we commend you and your committee for your commitment to developing a very strong and vital public networking or civic networking component. Such applications that are provided through the public interest community as well as some of the public networking groups are vital to maximize public participation in shaping the NII, and we believe that they will allow for a real broad range of diverse views which will define the requirements of a new universal service standard in the future.

I would like to take perhaps just one or two moments to focus on one of the reasons why State and local governments are very in-

terested in this public rights-of-way approach. As you know, most of the State legislatures these days are faced with mounting pressures for providing better services, more cost-effective services, while at the same time we see shrinking tax revenue bases.

And drawing from some of the examples that I have provided in my testimony of our experience in Hawaii, I think it is particularly noteworthy that while we have had a number of telecommunications distance learning pilot successes, at the same time, as we estimate our costs for what it would take to provide these kinds of pilot services on a statewide basis we are staggered by the enormity of some of the transition costs in using this new technology.

So, at this time, although NCSL does not have a position with respect to public rights-of-way, we very strongly endorse the provision of different methods of providing public sector applications—particularly in State governments—the potential of being recipients of the infrastructure fund, as well as being one of the primary entities to be served through this public rights-of-way legislation.

[The prepared statement of Ms. Fukunaga follows:]

PREPARED STATEMENT OF STATE SENATOR CAROL FUKUNAGA

My name is Carol Fukunaga, Hawaii state senator and chair of the Communications Committee of the National Conference of State Legislature's (NCSL) State-Federal Assembly. I am also a member of the U.S. Advisory Council on the National Information Infrastructure (NII) and cochair its Mega-Project II on Universal Service. Thank you for the opportunity to comment on S. 2195, "The National Public Telecommunications Infrastructure Act of 1994."

NCSL is the bipartisan organization serving the nation's state and territorial legislatures and protecting the legislatures' ability to develop imaginative responses to their states' needs. We believe that the federal system works best when state governments are allowed to work as "policy laboratories" with broad flexibility to innovate and respond to the unique needs of their residents.

NCSL supports the provisions of Section 714(d)(3) in the bill, wherein the FCC's allocations of public capacity shall be pursuant to telecommunications plans developed by state, local or tribal governments. This type of approach is consistent with the approach proposed in S. 1822, a bill that you cosponsored earlier this year, Mr. Chairman, regarding universal service requirements at the local level. In that measure, each state would be delegated primary responsibility for defining universal service and establishing the implementation mechanisms in the first two years following passage of the bill. State delegation thereby assures that the unique circumstances of individual regions and populations can be factored into the universal service equation.

NCSL also commends you and your subcommittee for your commitment to development of a strong, vibrant "civic networking" or public rights-of-way component of the NII. While discussion at the national level has focused primarily on the NII's long-term benefits (like job creation and economic growth, reduced health care costs, lifelong learning) and government services—electronic commerce, education and telemedicine—this measure also speaks to the need to include broad-based civic networking applications as part of the NII's initial deployment.

Often we think that disseminating more government information through electronic means is the primary means of building a more open and participatory democracy. However, as we have seen in Hawaii—through the mix of extremely diverse programming produced through OLELO: The Corporation for Community Television, KHET and Hawaii Public Broadcasting Authority, ATTN/VIEWS and the various distance learning channels—it is often the exposure to a diversity of voices and viewpoints, whether Samoan, Filipino, Chinese, the religious right or the gay and lesbian community, that stimulates a much higher level of participatory democracy.

And why is participatory democracy so vital to the development of the NII? Without the involvement of the full range of viewpoints, voices, and cultural perspectives that make up America's constituencies, it will be almost impossible to achieve the goal of insuring that information resources are available to all at affordable prices. How will we know whether or not we will be successful eliminating the gap between

the information "haves" and "have nots" if we do not make the tools of the information superhighway available to as broad a range of civic and public uses as possible?

THE PUBLIC RIGHTS OF WAY APPROACH GIVES STATE AND LOCAL GOVERNMENTS A WIDER RANGE OF RESOURCES WITH WHICH TO PROVIDE SERVICES OVER THE NII

Central to the debate over "universal service" in the development of the NII is the question of how much it will cost to provide services that we now take for granted—from free public education, libraries and community centers to multilingual voting, health care advisories, tax filings and permit applications—by electronic rather than traditional means. Many of these government services are provided by state governments.

We at the state legislative level are as pressured as your typical American family trying to balance a checkbook: with too many unmet needs, we're constantly looking for ways to trim expenses, deliver better services at less cost, or find partners to help us leverage scarce tax dollars. Looking at how we can "transform" major state programs in health, education, public safety and other areas using technology is even more daunting.

For example, both the University of Hawaii and Department of Education (DOE) are struggling to maintain quality programs while seeing equipment, facilities maintenance and telecommunications networking costs growing exponentially. Within Hawaii's K-12 educational system, tremendous progress has been made in the use of distance learning technology: from providing one math program to 20 classroom sites statewide to providing more than a dozen programs to 500+ classrooms. Special "Training for Teachers" afternoon programs provide in-service training to thousands of teachers statewide, with viewer call-in evening programs providing urgent information on DOE and programs to the public via cable television. Hawaii's "KidScience" program was selected as the "Best K-12 Distance Learning Program" in the nation last year by the National Distance Learning Association.

Yes, these initial technology successes, and the excitement created among students, teachers and parents, only highlight the fact that fully equipping and training teachers and students to take full advantage of these new tools is probably beyond the reach of our current revenue projections: at least $250 million over the next five years is what it would cost just for DOE's facilities, curriculum development, teacher training, hardware/software and staff support alone. That amount, when measured against DOE's annual $850 million dollar budget, represents almost a 30 percent investment of new dollars that we do not have.

As such, identification of "state * * * governments and * * * their agencies, accredited educational institutions open to enrollment by the public, public telecommunications entities and public * * * libraries" as entities eligible for free access to the reserved public capacity, and among the potential recipients of the Public Telecommunications Infrastructure Fund is a welcome acknowledgement of the enormous transition costs state governments face in moving into electronic services delivery.

NCSL strongly endorses the examination of different methods of cost allocations between state, local, federal and private sector partners in providing public service applications on the NII. Although it presently has no position on whether allocations of public capacity and funding represent a better approach than one involving preferential rates, or technology grants from federal agencies, NCSL notes that any of these approaches (or combinations thereof) would provide states with considerable relief.

Recently, the National Telecommunications and Information Administration solicited grant applications for its first round of NII local planning and demonstration projects. Congress appropriated $26 million dollars in FY 94 for this initial competitive grant process—for which over 10,000 applications were requested, and more than 1,070 applications were submitted in May 1994. The total dollar amount requested in these applications (approximately half of which were for community information, K-12 education and higher education projects) is $562 million—with comparable matching funds being pledged by state and local governments. The fact that these applications were assembled in barely two months' time, and the size of the total request, easily demonstrates the potential breadth of resource needs that S. 2195 could begin to addresss.

OTHER STATE GOVERNMENT CONCERNS

Apart from the general observations offered in these remarks, there are a number of issues raised by the implementation provisions of S. 2195. A number of these issues may result from application of "reserved capacity" concepts to computer and telephony-oriented, switched broadband network environments; and will need clari-

fication vis-a-vis state governments, their agencies and their telecommunications networks.

a. Would state government-owned or operated networks be included in the definitions of "telecommunications network" provided in Section 714(a)(1)? How would educational networks be treated? Would they be subject to the 20 percent reserved capacity requirement? What kinds of network technologies would be encompassed by-the definition provided in Section 714(a)(1)?

For example, Hawaii's state government information network, HAWAIIAN, consists of two DS-3 microwave links (one between Oahu-Kauai; and one link between Oahu-Lanai-Maui-Hawaii) between Oahu and the various neighbor island state office building sites. The state's network is not a common carrier video platform, cable television network, or direct broadcast satellite system (DBS), which have been identified as types of networks included in the definition.

b. How broadly would the definition of "accredited educational institution" in Section 714(d)(1)(B) be read? Would the definition include an array of services including general education, baccalaureate and advanced degrees, technical and vocational training, continuing education for professionals and technicians provided and supported by integrated educational systems comprised of preschool-12th grade, community colleges and technical schools, four-year colleges and universities, post-baccalaureate degree-granting institutions, professional schools and continuing education programs (all supported by information made available through libraries)?

We believe S. 2195 provides an invaluable forum in which to raise these and other public sector and civic applications issues, and NCSL applauds your subcommittee's efforts to balance federal telecommunications goals with state and civic "rights-of-way" implementation concerns. Your subcommittee's deliberations will go a long way towards defining some of the key policy and funding issues that must be dealt with in the new "universal service" standards for the NII; and insure that the best features of the information superhighway will be available to all Americans.

Senator INOUYE. I thank you very much, Senator. As you know, some have argued that if the Government wants to ensure free access to public educational and noncommercial entities, that we should directly subsidize these services through tax revenues. What do you think about that?

Ms. FUKUNAGA. Well certainly, at this point I think that is something that we would have to look at very, very closely. In the State of Hawaii, we have examined the possibility of increasing general excise taxes to pay for some of the telecommunications infrastructure requirements.

Unfortunately, during times when States are going through perhaps recessionary economic difficulties, it is very hard to impose new taxes to pay for some of these new technologies. We have also looked at other alternatives such as imposing a surcharge on some of our cable and telephone services within the State of Hawaii. Again, these are different alternatives we have been considering.

This morning I would urge that States and the Federal Government continue to work closely together to find the best means of funding some of these new services at the public sector level.

Senator INOUYE. Hawaii, like few of the States, has already developed a system to serve educational services. You have the Hawaii Interactive Telecommunications System. Why is this bill necessary if you already have a system in operation?

Ms. FUKUNAGA. Well certainly, we do have some terrific distance learning applications that have done very, very well in the last few years. However, with the FCC's recent mandates for rate reductions, one of the things that has happened at the local level is that our distance learning applications are now being asked to pay for some of the services that are now being provided for free.

Consequently, because of the changes that are happening nationally, it looks as though the level of PEG programming revenues

that come to some of our local affiliates will be dropping. And the first area that States will be asked to pick up the difference in is going to be in the distance learning area.

Senator INOUYE. I thank you very much, Senator Fukunaga. I can assure you that your full statement will be made part of the record and that your views are most welcome here.

Ms. FUKUNAGA. Thanks very much, Mr. Chairman.

Senator INOUYE. Now may I call upon as a panel the president of the South Carolina Educational Television Network, Henry J. Cauthen; the president of the University of Maine at Augusta, ME, Dr. George P. Connick; the chairman of the Alliance for Community Media, Anthony T. Riddle; the director of the Communications Policy Project, the Benton Foundation, Andrew Blau; and professor of law at the Benjamin N. Cardozo School of Law, Yeshiva University of New York, Dr. Monroe E. Price.

I am certain some of you have noted the absence of members here, but today is one of the worst days we have had. There are, believe it or not, 14 hearings going on at the same time. Mr. Cauthen, you may be interested to know that Chairman Hollings has a hearing on appropriations at this very moment, so he sends his regrets to you, sir. So, may I call upon you first, sir?

STATEMENT OF HENRY J. CAUTHEN, PRESIDENT, SOUTH CAROLINA EDUCATIONAL TELEVISION NETWORK (SCETV)

Mr. CAUTHEN. Thank you, Chairman Inouye, I appreciate the opportunity to speak on behalf of public broadcasters from throughout the country as well as my home State network of South Carolina.

You know, Senator Hollings was Governor Hollings when our State network was created 35 years ago, and it was through his strong support that it came about. And were he here I would have wanted to thank him very much for the support he gave us then, and the support he has continued to give us through the years. And as you, I am sure, know, he is very aware of the importance of what educational and public broadcasting can do. And I just wanted to let him know through you that we are not going to let him down in South Carolina, and I hope we will not let the country down with what we can do with public broadcasting and with the emerging technologies.

The legislation that we are talking about today is critical if the information superhighway of the future is to serve the public interest. We call it the public right-of-way legislation, and the title reflects the fact that the new information highway will be constructed using public rights-of-way, including the radio frequencies' public streets, public easements, and many other already provided public resources.

We believe that every citizen is entitled as a matter of law and policy to benefit from the use of these public resources from which the commercial operators of this information superhighway will surely generate significant revenues. We propose that in return for the public's investment in these rights-of-way that a portion of the information highway be made available for instructional, educational, and informational services.

Let me briefly highlight some of the major points of the legislative proposal you are considering today. It requires the FCC to re-

serve up to 20 percent of the capacity of the information highways for public nonprofit informational, educational, and cultural programming and other services. The 20 percent, I would point out, is a benchmark to be applied by the FCC on a technology-by-technology basis. The FCC, however, has the flexibility first to reduce the capacity; then to return it for nonuse; and finally, to eliminate the obligation completely if it is to determined the technology is otherwise sufficiently open and accessible.

Without this legislation, however, we stand in real danger of being divided into a Nation of information haves and have-nots, which I think would be a disaster. Eligible under the legislation to use the public right-of-way are schools and libraries, State and local governments and certain nonprofit entities, and public broadcasting. And why public broadcasting? The answer is simple. To expand upon Congress' dream and investment of the past for public broadcasting by allowing us to extend the power of new technologies to our Nation's schools and ensure their availability to all Americans.

Many public broadcasters are currently limited to a single broadcast channel, and cannot distribute services provided through other technologies because they do not have the means to reach out over that last mile to homes and schools. Access to the distribution network that will make up the information superhighways would resolve the problem allowing them to distribute the wide range of educational services that will be available on Telstar 401 and other sources.

South Carolina ETV is perhaps an early model of what the information highway can mean to all States. South Carolina is a poor, relatively rural State, but has used technology extensively to make up for its lack of financial and other resources. For years we have been using an advanced multichannel cable and ITFS and broadcast television system in the classroom to provide learning resources that could not have been made available in any other way. So, it is not surprising that when our State took a hard look at the continuing educational inequities, increasing demands for service, and ever-diminishing resources that you so well are aware of, it was evident that a greatly expanded use of technology would be necessary if we as a State were to find solutions.

With funding from the general assembly we purchased a transponder on Telstar 401, increasing our channel capacity from 6 to more than 30 channels for the State of South Carolina. What does this mean for South Carolina? It means that every student in our State, regardless of his or her school's size, location, or funding level, will have access to every course available, as well as our State's best and brightest teachers. The system will also serve all State higher education institutions, State prisons, State agencies, and most hospitals and libraries. In short, it offers enormous possibilities in a State where equity in education has often seemed impossible.

Without access to the information highways of the future, however, most States will be unable to provide such services. It would be too expensive on the information highways as now being planned. We should not make these highways toll roads for those who need them most and can least afford them. As many people

have pointed out, this is an important time of change. It is clear we are entering a new age, the Information Age. For all too long, too many of our people have been unable to gain access to many of the important and sometimes essential resources our society has to offer.

In the future, full access to information resources will be the equalizer that will allow everybody to compete on an even field. It is increasingly important and ultimately essential that that happen. The decisions that are made now will have a profound effect on our country for generations to come. We have, for the first time in our history, an opportunity to provide true equity in educational opportunity, something we have never really been able to aspire to, but it is now just within our grasp. It would be a tragedy of enormous proportions if we let this opportunity slip through our fingers. We in educational and public broadcasting stand ready, Mr. Chairman, to work with the Congress to ensure that this does not happen.

And I appreciate the opportunity of speaking to the committee today.

[The prepared statement of Mr. Cauthen follows:]

PREPARED STATEMENT OF HENRY J. CAUTHEN

Thank you Mr. Chairman and members of the subcommittee. I am pleased to appear before you today as a representative of public broadcasters across the country and of my own state public broadcasting system, South Carolina Educational Television. SC ETV was, by the way, established more than 35 years ago under the leadership of our then-governor Ernest F. Hollings. We hope that he feels that we have been good stewards of the great trust he placed in us, and we know that we have benefited greatly from his consistent interest and support.

I would like to thank Chairman Inouye and this subcommittee for including public broadcasting in this hearing, and I am proud to be here advocating what I and my colleagues believe is the most important public education/public culture legislation since Congress passed the Public Broadcasting Act 27 years ago. I testify today on behalf of public broadcasters and their national representative, the Association of America's Public Television Stations.

The legislative proposal we are considering today, S. 2195, is critical if the information superhighways of the future are to serve the public interest. This legislation, which has been referred to as the public-right-of-way legislation, reflects the fact that the new information highways will be constructed using public rights-of-way, including radio frequencies, public streets, public easements and other valuable public resources. Accordingly, our citizens—faced with crime, community and economic divisiveness, unemployment, educational inequity, and competitive concerns—are entitled, as a matter of law and policy, to receive benefits back from the commercial operators of these super highways. We propose that one of these benefits should include making a portion of the superhighways available for instructional, educational, cultural and informational services to support the public in addressing these concerns.

Our future information superhighways will be facilitated and structured by this Congress. The matter of the public's access rights to such highways must be addressed now just as the scope, the vision, and the grand design of these roads are being developed. When our country has launched similar projects in the past, it has sought to assure the public's participation in their benefits. That's why our proposal should be considered at this time-as an indispensable part of the superhighway legislation.

As you can see, this proposal would reserve up to 20 percent of the capacity of information highways for public, non-profit, informational, educational and cultural programming and other services. It would assure that all citizens will continue to have free access to these services on all distribution technologies. Assuring this access will meet at least two important National Information Infrastructure policy goals announced recently by Vice President Gore: the goal of universal service in order to prevent our nation from splintering into the information "haves" and "have

nots" and the goal of providing open access to the information infrastructure by consumers and noncommercial service providers.

I'd like to stress that the 20 percent is a benchmark. The legislation provides the FCC with the flexibility to set a reduced or phased in amount depending on the technology. It is important to note that this legislation is intended to be a transitional measure to insure public access as new technologies evolve. Should telecommunication networks achieve their promise and become truly open and accessible such that technological and economic barriers to access have been eliminated, this legislation would permit the FCC to eliminate the reservation obligation.

The FCC would have the authority to allocate public right of way capacity to eligible entities for the purpose of providing noncommercial educational services to the public at no charge. The list of eligible entities is not limited to public broadcast stations. Instead, it includes schools, libraries, state and local government entities and nonprofit entities organized for the purpose of providing public access to noncommercial educational services.

The FCC is directed to make block grants of capacity to state and local government entities to make allocations to eligible entities on a local basis. This provision reflects the belief that telecommunications needs of the public are best filled on a state and local basis.

Since the technologies and services of the information highways will be evolving rapidly, the proposed legislation would leave it to the FCC and other sub-allocating entities to design, implement and, as circumstances warrant, further revise their allocation procedures.

It is important to understand that this type of access proposal is not new. It has deep roots in American culture and in the history of American education and public broadcasting. When the Federal government was engaged in distributing public lands, it allocated portions for "land grant colleges." My home state of South Carolina benefited greatly from this program with the establishment of both Clemson University and South Carolina State University.

When the government came to allocate radio and television frequencies for commercial broadcasting, it set aside certain channels for public radio and television stations. In fact, approximately 30 percent of television channels were reserved for public television—a precedent which makes a 20 percent proposal for a much broader range of users modest by comparison.

Why do public broadcasters need access to the information highway? The answer is simple—to expand upon Congress' dream for public broadcasting by utilizing the power of new technologies to reach our nation's schools and homes with noncommercial, educational services.

Thanks to Congress' investment, public television owns six fully digital KU band transponders on Telstar 401, the satellite launched in December by AT&T. This satellite, which incorporates the latest digital technology for video, voice and data, in combination with V-SAT equipment, will be capable of delivering a broad range of interactive educational services to local public broadcast stations for delivery to homes, schools and universities.

But public broadcasters face a serious problem in distributing these services over the last mile to homes and schools. Many stations are restricted to a single broadcast channel to distribute their services. With access to the distribution networks that will make up the information superhighways, we would have the ability to distribute the wide range of educational services that will be available on Telstar 401 to people nationwide, when and how they need them.

I am proud to say that South Carolina ETV has already "put the pedal to the metal" and is currently traveling at a high but safe speed on our on statewide information highway.

South Carolina is a poor, largely rural, but highly innovative state. For years, we have been using television in our classrooms to offer instructional resources to students and teachers. In addition, our teleconferencing center is the busiest in the nation, offering school districts, state agencies and local governments training and lifelong learning resources while saving the state millions of dollars in travel and lost productivity costs. So it is not surprising that when our state took a hard look at educational inequities, increasing demands for services and our ever-diminishing resources, technology surfaced as a possible solution. South Carolina ETV was ready for the challenge and began to construct our information highway.

With funding from the General Assembly, we purchased a transponder on Telstar 401, increasing our channel capacity from six to possibly as many as 40 channels. Private and public colleges and universities, recognizing the unlimited resources the highway offered, began laying their own asphalt, purchasing satellite dishes for their campuses with their own funds. The Department of Education applied for grants to purchase satellite dishes for grades K-12, linking schools across the state,

and as recently as June 2 of this year, the state General Assembly renewed their support for the highway, appropriating an additional two million dollars for distance learning.

What will the completion of the highway mean for South Carolina? It means that a student in our state, regardless of his or her school's location, size or funding level will have access to every course available, as well as our state's best and brightest teachers. It means that our school buildings will be used for basic skills, lifelong learning and tutoring programs long after the bell rings at three o'clock. It means that our elementary students will have access to foreign language classes even if their districts can't afford foreign language teachers, our middle schools will offer algebra and advanced level courses even if they only have two or three students who qualify, and our high school students will take college courses from the universities of their choice without ever leaving school grounds. In short, it gives local districts the flexibility needed to offer the kind of curriculum their parents and students demand and deserve and offers limited possibilities in a state where equity in education has often seemed impossible.

The highway's use in traditional classroom settings just barely scratches the surface of its potential use state, nation, and worldwide. We are delivering live, interactive seminars on early childhood education to Head Start teaching teams serving rural, migrant, Native American, and Alaskan village populations in the United States. A business channel offers information and training for corporations located in our state with an effort to expand our state's economic development. Training courses for everyone from teachers to police officers to foster parents to bus drivers save our state money, develop a more highly trained workforce and improve the quality of life for our citizenry. In addition, our highway makes it possible for us to access information, courses, and training from around the world. And our system's potential has no boundaries. Simply put, with no pun intended, the sky is the limit.

Direct access to the information highway would permit us to distribute these and other educational services to everyone, everywhere, at anytime. It would also permit states throughout the country, that do not have their own educational networks, to utilize existing networks to distribute the types of educational services available in South Carolina.

South Carolina ETV is not alone in its innovative use of technology. Public broadcasters across the country are developing exciting new applications for the information infrastructure.

- Today, PBS Online uses both satellite and ground-based networks to deliver lesson plans, course materials, program transcripts and video segments to schools in 20 states. With wider access to the information highways, these services can be expanded to provide a powerful interactive educational network that will link students, teachers and parents throughout the country.
- Today, WGBH in Boston offers the Diploma Connection, a partnership with local cable access outlets, to offer a GED course for more than 450,000 Boston-area residents who have not earned a high school diploma. The impact, if this course alone were distributed nationally, is staggering.
- Today, the Satellite Educational Resources Consortium, a partnership between producing stations, like South Carolina ETV, and departments of education, distributes interactive distance learning courses to 5,000 high school students in 28 states. These courses, which bring math, science and foreign language courses to rural and disadvantages schools, can and should be available nationwide.
- Today, national public radio uses various computer networks and bulletin boards, as well as CD-ROMS in libraries, to distribute its in.depth news and information services. These services should be guaranteed a place on our information highways.
- In the near-future, Mathline, a video, data and voice communication system devoted to improving the math achievement of American students, and Ready-To-Learn, an early childhood development service aimed at helping parents and childcare providers raise children who are ready to learn, will be available on Telstar 401 for distribution by local public broadcast stations. The availability of these and similar services to our nation's schools, childcare centers and homes must be assured.

Paying for the capacity to distribute these services is not an option. We should not make the information highway a toll road for those who need it most and can least afford it. Public broadcasting's scarce resources are already stretched just to maintain the universally available public broadcasting service that is our primary obligation to the American people. As broadband, interactive networks come on line, public broadcasters face the danger that the foundation of our support—Americans who can afford to pay for enhanced telecommunications services—will migrate to

those networks. As these networks become widely used, public broadcasting must have access to them not only to distribute a wider range of educational services, but also to maintain access to those viewers who support our universal program service.

Finally, public broadcasting has a demonstrated track record of technology and service innovation that should reassure Congress that a public right-of-way resource would be effectively used. We were the first to interconnect our network of over 300 television stations by satellite and the first to deliver stereo sound. We pioneered dosed captioning for the hearing impaired and second language audio channels. Among all broadcasting organizations, we have moved the fastest and the furthest toward digital transmission of its service. And our new satellite, Telstar 401, leads the field in technological innovation and enhancement of service opportunities for our viewers.

Public broadcasters are realizing Congress' goal of making public telecommunications services available to all Americans. But we need your continued support to make a whole new range of educational services available on the new information highways.

For over forty years, the Federal government has supported the public's access to educational and cultural programming. An immense amount of public and private resources have been invested in realizing Congress' goal of making public telecommunications services available to all Americans. As Congress lays the foundation for a new telecommunications system in our country, it should not abandon principles that have served the public well in the past and that promise to be even more important in the future.

Congress has already found that "all citizens of the United States [should] have access to public telecommunications services through all appropriate available telecommunications distribution technologies." Today Congress may, with little difficulty, realize this goal by reserving a public right-of-way on the information highway.

Tomorrow, without public intervention, the highway will be constructed and dedicated to commercial uses. We believe that if technology legislation is enacted, unaccompanied by a public right-of-way, this country will have tragically missed a once-in-a-lifetime opportunity to assure that the highway will be harnessed to serve the educational, informational and cultural needs of our people.

Senator INOUYE. Thank you very much, Mr. Cauthen. I will convey your good wishes to Senator Hollings. I would like to go through the panel first before we ask questions, so, if I may, I would now like to call on President Connick.

STATEMENT OF DR. GEORGE P. CONNICK, PRESIDENT, UNIVERSITY OF MAINE AT AUGUSTA

Dr. CONNICK. Thank you, Senator. Chairman Inouye and members of the subcommittee, I am here to represent the Instructional Telecommunications Council and the Commission on Information Technologies of the National Association of State Universities and Land-Grant Colleges. This testimony is also endorsed by other national higher education and library associations, including the American Council on Education and the American Library Association.

On behalf of the higher education community, I commend you for your vision. We fully support the concept of a reserved set-aside on the information superhighway for educational institutions, libraries, and other public service users. It is vital to the future of higher education that these communities receive guaranteed access to the information superhighway. We agree with Secretary Riley's statement to the Commerce, Science, and Transportation Committee on May 25 that, "educational institutions, large and small, school libraries, literacy centers, early childhood centers, community colleges, and universities should have access and usage of advanced telecommunications services."

S. 2195 is consistent with other Federal Government telecommunications set-asides for purposes such as the public education and Government channels on cable systems, and FCC spectrum reservations for noncommercial television and radio, and for ITFS. The benefits the Nation has received as a result of these set-asides is well known and beyond question. Spectrum set-asides work, and our experience in Maine, reserving ITFS frequencies for noncommercial educational uses, is a clear demonstration of that fact.

Maine can also serve as a model for how others can serve their communities, States, regions, and the country if public right-of-way and other accommodations are made available to the public sector on the NII. The University of Maine's statewide ITFS system has been able to significantly expand educational opportunities to all of our citizens.

The education network of Maine was created by the University of Maine system in 1989 to provide educational access for people who are geographically isolated from campuses or who do not have access locally to the type of degree program or training which they need. The network consists of a multichannel, statewide, university fiber optic ITFS system which reaches over 100 locations, including islands off the coast of Maine.

To ignore the advantages we gain from these technologies would not only waste the public resources that have helped our colleges and universities build their telecommunications systems, but it would deny students, workers, and adult learners the educational opportunities they can only access through distance learning. We understand from your remarks in introducing the bill that the intent of S. 2195 is to reserve capacity for public use where it is appropriate for the technology.

Frequency or channel allocation have long histories and are sharply defined, but cannot be applied in the same manner to digital broadband packet systems. It may be more appropriate to identify alternatives such as preferential rates, guaranteed rates, or other mechanisms to meet public needs for access for these areas. We also understand that it is not your intent to include the Internet or NSFNET in the definition of "telecommunications networks" in this legislation. It is our recommendation that you clarify the statutory language to also exclude noncommercial networks such as networks of schools or nonprofit organizations, higher education, and educational institutions, libraries, and library agencies from that definition.

At this time we are in the opening stages of planning what services will be offered on the NII and who will be able to gain access. The Federal Government must ensure that colleges can continue offering classes in order to upgrade worker skills and improve the adult literacy rate and promote an educated public. In this way, institutions of higher education can extend educational opportunities to all Americans, regardless of their location, economic status, age, or disability.

Meanwhile, the NSFNET and the total assembly of networks, both national and international, that comprise the Internet have become a crucial tool to enhance instructional and research productivity. These new network information services have been devel-

oped in an innovative and unregulated environment which has fostered cooperative efforts. Higher education institutions, like most organizations, are under a great deal of pressure to increase productivity and reduce costs. Greater public access to the information superhighway will promote more efficient learning and resource sharing.

Thus, it is important that all levels of education are included in this and other legislation pertaining to the NII. Education must be seen as a continuum, K–12 through postsecondary. Moreover, as technology provides a seamless web of opportunities, students at all levels will have access to curriculum most appropriate to their intellectual needs and interests, and we must support that opportunity. To hinder this trend would be both wasteful and detrimental to many communities.

Basically, our position comes down to the fact that our colleges and other public institutions do not have the resources to outbid private industry for channels on the information superhighway. Guaranteed access to communications networks, whether it is used as a means for community college teachers to transmit courseware to students at a distance or as a way for university research scientists to reach online data bases and libraries, is of crucial importance to our educational institutions.

There is a precedent for providing guaranteed set-asides for public use of information systems. And as our experience in Maine shows, the NII could be an indispensable tool that can help our Nation more efficiently deal with the challenges of promoting an educated public, providing ongoing workforce retraining, and helping research universities pursue valuable research and development projects that will help our Nation keeps its leading technological edge into the next century.

Thank you very much for providing this opportunity to testify.

[The prepared statement of Dr. Connick follows:]

PREPARED STATEMENT OF DR. GEORGE CONNICK

Chairman Inouye and members of the Subcommittee, my name is George Connick and I am the president of the University of Maine at Augusta. I am here to represent the Instructional Telecommunications Council and the Commission on Information Technologies of the National Association of State Universities and Land-Grant Colleges. This testimony is also endorsed by other national higher education and library associations, including the American Council on Education and the American Library Association.[1]

On behalf of the higher education community, I commend you for your vision. We fully support the concept of a reserve set aside on the information superhighway for education institutions, libraries and other public service users. It is vital to the future of higher education that these communities receive guaranteed access to the information superhighway. We agree with Secretary Riley's statement to the Commerce, Science and Transportation Committee on May 25 that "[e]ducational institutions, large and small—schools libraries, literacy centers, early childhood centers, community colleges and universities—should have access and usage of [advanced telecommunications] services."

S. 2195 is consistent with other federal government telecommunications set asides for purposes such as the public, education and government (PEG) channels on cable systems and FCC spectrum reservations for noncommercial television and radio,

[1] This testimony is endorsed by the following national associations: American Association of Community Colleges, American Association of State Colleges and Universities, American Council on Education, American Library Association, Association of Research Libraries, Council for the Advancement and Support of Education, National Association of State Universities and Land-Grant Colleges, National University Continuing Education Association.

and for ITFS. The benefits the nation has received as a result of these set asides is well known and beyond question. Spectrum set asides work and our experience in Maine, reserving ITFS frequencies for noncommercial education uses, is a clear demonstration of that fact Maine can also serve as a model for how others can serve their communities, states, region and the country if public right-of-way and other accommodations are made available to the public sector on the NII. The University of Maine's statewide ITFS system has been able to significantly expand educational opportunities to all of our citizens.

The Educational Network of Maine (ENM) was created by the University of Maine system in 1989 to provide educational access for people who are geographically isolated from campuses or who do not have access to the type of degree program or training which they need. The Network consists of a multi-channel, statewide, University ITFS system which reaches over 100 locations, including islands off the coast of Maine. The instructional television system is primarily one-way video (although the seven campuses have two-way video) and two-way audio using auto-dialing phones connected by 800 service.

In addition to instructional television, all Network locations are connected by computer and fax machines and the University System on-line network called URSUS. People living on the island of North Haven (an hour ferry ride off the coast of Maine), for example, have access to approximately 65 live university courses, four technical college courses, four hours per day of courses and teacher training for high schools, interactive meetings and access to the library resources of the university system and, indeed, the world through URSUS and its connection to on-line library catalogs in all 50 states and 12 foreign countries. These same services are available to every location across the state.

Currently, the university system offers five, full associate degrees at a distance and one masters degree. This fall, a second masters degree in library science will be imported to Maine from another state. An extended baccalaureate degree, to be offered at a distance, is in the final stages of planning and is scheduled to be offered in the fall of 1995. Currently, there are over 3,500 students taking Network courses for credit each semester and over 25,000 people use the Network for non-credit courses, training programs and meetings.

The number of student enrollments in Maine's ITV system increased 55 percent when one compares the fall semesters of 1989 to 1993. This a trend that is echoed across the country. The majority of our students are working adults. They cannot attend classes in a traditional setting because they live too far away from our seven campuses, but can easily travel to our more than eighty receive sites located at high schools, community colleges, universities and community centers across the state. Other students work during regular classroom hours, or they have to stay close to home because they cannot afford childcare or have physical disabilities. To ignore the advantages we can gain from these technologies would not only waste the public resources that have helped our colleges and universities build their telecommunications systems, but it would deny students, workers and adult learners the educational opportunities they can only access through distance learning.

We understand from your remarks in introducing the bill that the intent of S. 2195 is to reserve capacity for public use where it is appropriate for the technology. Frequency or channel allocation have long histories, and are sharply defined, but cannot be applied in the same manner to digital broadband packet systems. It may be more appropriate to identify alternatives such as preferential rates, guaranteed rates or other mechanisms to meet public needs for access for these arenas. We also understand that it is not your intent to include the Internet or NSFNET in the definition of "telecommunications networks" in this legislation. It is our recommendation that you clarify the statutory language to also exclude non-commercial networks such as networks of schools or non-profit organizations, higher education and educational institutions, libraries and library agencies from that definition.

HIGHER EDUCATION AND THE TRANSITION TO THE NII

I would like to provide a brief picture of the significant role the NH can play with regard to higher education. The trend across the country is that education is becoming less place-bound and time-specific, and more user friendly. We should look toward using the new technologies so students can learn on an on-going basis—whether that is from the home or workplace—on an as-needed basis. Labor Secretary Robert Reich has often referred to the fact that today's work environment demands continual worker retraining—for employees who do not have the time or luxury of attending traditional on-campus courses. The NII is a perfect and efficient medium for life-long learning.

At this time we are in the opening stages of planning what services will be offered on the NII and who will be able to gain access. The federal government must ensure that colleges can continue offering classes in order to upgrade worker skills, improve the adult literacy rate and promote an educated public. In this way, institutions of higher education can extend educational opportunities to all Americans, regardless of their location, economic status, age or disability.

Meanwhile, the NSFNET and the total assembly of networks, both national and international, that comprise the Internet, have become a crucial tool to enhance instructional and research productivity. It is estimated that our nation's campuses have invested at least one billion dollars to build their own infrastructure to support the use of networks. They have invested in personal computers for instruction and communications, installed campus networks, and have formed regional alliances so students, faculty and research scientists can easily "talk" on-line with their colleagues, libraries and research institutions to further the pursuit of learning. These new network information services have been developed in an innovative and unregulated environment which has fostered cooperative efforts.

Higher education institutions, like most organizations, are under a great deal of pressure to increase productivity and reduce costs. Greater public access to the information superhighway will promote more efficient learning and resource sharing. Thus, it is important that all levels of education are included in this and other legislation pertaining to the NII. Education must be seen as a continuum, K-12 through postsecondary. This is essential for many reasons, not the least of which is that much of the academic enrichment and in-service training material used by K-12 schools are produced by higher education and transmitted throughout a state, region or the nation by any number of telecommunications technologies. In many districts, both rural and urban, communications technologies are serving as a means for educational institutions at all levels, libraries, and other public entities to cut cost by sharing the resources they produce. Similarly, most of the job-site training and worker retraining, that is and will be provided to the U.S. workforce, is produced and delivered by higher education electronically. To hinder this trend would be both wasteful and detrimental to many communities.

In May, my colleague Elaine Albright, dean of cultural affairs and libraries at the University of Maine in Orono testified before the Senate Committee on Commerce, Science and Transportation. She pointed out that the University is extending library services to our "location-independent community college" of Maine. Many of these sites are in small public libraries or local high schools. Already these campuses are being linked together through communications technologies which allow toll-free access to the state-wide network. As Dean Albright made clear, the library system can serve as one more mechanism to "provide equitable public access to [library] services and could (and many are) serve as sites for access to the NII."

CONCLUSION

Basically, our position comes down to the fact that our colleges and other public institutions do not have the resources to outbid private industry for channels on the information superhighway. Guaranteed access to communications networks—whether it is used as a means for community college teachers to transmit courseware to students at a distance, or as a way for university research scientists to reach on-line databases and libraries—is of crucial importance to our educational institutions.

There is a precedent for providing guaranteed set-asides for public use of information systems. And as our experience in Maine shows, the NII could be an indispensable tool that can help our nation more efficiently deal with the challenges of promoting an educated public, providing on-going workforce retraining, and helping research universities pursue valuable research and development projects that will help our nation keep its leading chronological edge into the next century.

As Secretary Riley testified last month on S. 1822, "it will be absolutely impossible to educate the coming generation of young people to high standards of excellence—if their access and use of the MI is seen as a secondary consideration to broad based commercial purposes * * * [The NII] is an essential tool for achieving the National Education Goals, and an integral part of our future education system. * * * Providing free usage, or usage that is at least as inexpensive as possible, is the right way to go."

Thank you for providing me the opportunity to testify on this legislation. I look forward to working with you and welcome any questions or comments you might have.

Senator INOUYE. President Connick, on behalf of the committee I thank you for your fine testimony. May I now call upon Chairman Riddle.

STATEMENT OF ANTHONY T. RIDDLE, CHAIRMAN, ALLIANCE FOR COMMUNITY MEDIA; EXECUTIVE DIRECTOR, MINNEAPOLIS TELECOMMUNICATIONS NETWORK

Mr. RIDDLE. Thank you, Mr. Chairman. Thank you for the opportunity for appearing before this committee, and I would like to thank you very much for having this legislation for us to speak on.

I represent the Alliance for Community Media, which is a membership organization that represents the 3,000 or so public educational and government access facilities in the United States. We currently have about 1.2 million volunteers per year, producing more than 20,000 hours of programming per week, more than all the broadcasters in the Nation combined. We have taught a whole generation of people how to use technology in order to better express themselves, to create a sense of community, and to be able to educate their youth.

We have come to support this bill wholeheartedly. We think that it fills a gap that was obvious in the legislation that is both on the House side and on the Senate side. We also come with support from other organizations, including the National Association of Telecommunications Officers and Advisors, and the Minnesota Association of Cable Television Administrators. In addition, we will pass out to the committee a resolution adopted by the U.S. Conference of Mayors offering support for this bill, and we hope that the cities and the telecommunications officers will at some point have the opportunity to speak to this legislation.

Something kind of interesting happened this weekend too. I went to a June Teenth celebration. I do not know if you are familiar with June Teenth, but June 19 is the date upon which the slaves in Texas learned of the Emancipation Proclamation, approximately 2½ years after it was signed into law by President Lincoln. This means that for 2½ years children were born into slavery that should have been born free. It means that for 2½ years people who had toiled in slavery all their lives died in slavery when they should have had their last couple of years free. And it also meant that a great number of people gave another 2½ years of their lives and their economic effort to other people who, for economic reasons, chose to deny them the information that they needed to have control of their own lives.

And I think this is a dramatic representation of what is really at stake here. It is important that our system be market driven. It is obvious that this is the engine that drives the whole system. But it is also important that certain safeguards be put in place so that the people of this country can speak with each other, can talk over the issues of the day in an unmediated fashion to be able to get the information that they need to make the correct decisions.

We have been teaching, as I said, a whole generation of people from all communities how to speak for themselves, and giving them the means of doing so. We have helped African Americans and seniors and youth provide programming that did not exist elsewhere,

as well as diverse language communities such as the Spanish, Vietnamese, Farsi, and Portuguese.

In Chicago, over 2,000 nonprofit groups from HIV–AIDS education groups to school reform organizations have used access channels. There are 8,000 nonprofits in Chicago, 85 to 90 percent of which have budgets under $100,000. Schools, libraries, hospitals, and nonprofit service organizations use community channels across the country.

In Austin, TX, community groups and individuals provide volunteer and staff efforts valued at 10 times the access centers budget. The Minneapolis Telecommunications Network, of which I am the executive director, annually serves over 100 community groups, trains 500 residents a year, and provides 20,000 hours of editing time, as well as gavel-to-gavel political debate, on a budget of less than the cost of a 15-second spot during the Super Bowl.

We think that there is a great deal of efficiency built into the system. We believe that the superhighway is not something that is coming in the future, but is something that is here, and we think that PEG is a good example of how these allocations may take place. So, we hope that you will continue to use the cities and to some degree the States, to allocate both the funding and the channel capacity on the new systems.

[The prepared statement of Mr. Riddle follows:]

PREPARED STATEMENT OF ANTHONY RIDDLE

I am Anthony Riddle, Chair of the Alliance for Community Media, a national membership organization representing 3,000 public, educational and governmental ("PEG") cable television access centers and the 1.2 million volunteers who provide public, educational and governmental access television across the United States. I am the Executive Director of the Minneapolis Telecommunications Network. At MTN we program 13 channels, serve over 100 community service organizations, provide 20,000 hours of editing time, have 4,000 days of equipment checkout, provide gavel.to-gavel coverage of most political debates, and teach nearly 500 community producers. And we do all that on an annual budget which is less-than what it takes to produce one week of All My Children.

On behalf of the many community groups and individuals who use PEG channels each week to produce over 20,000 hours of new programs, more than the output of all broadcasters combined, I want to thank the Subcommittee for the opportunity to speak today.

Specifically, I want to thank Chairman Inouye for introducing S. 2195, which recognizes the need for all Americans to be able to send and receive information over all telecommunications systems. This need was brought home to me this weekend when I was watching a report on Juneteenth celebrations on the news. Juneteenth is a celebration of African-American emancipation which originated in Texas.

It is a celebration of the day, June 19, 1865, on which the slaves found out that President Lincoln had issued the Emancipation Proclamation freeing them two and a half years before. It took two and a half years for the news to filter down to them. In this time, children were born into slavery who should have been born free. Some who had toiled their entire lives died slaves when they should have died free.

As the announcer noted: "They were just too far down the information chain." This is a stunning example of what happens when your access to information is controlled by others who have a financial interest in what you know and when. This is antithetical to a freedom-loving people. As we face a new communications environment, it is important that Congress preserve and expand the availability for community use of all communications technology.

DECENTRALIZED, COMMUNITY MEDIA: CHANGING AND BUILDING COMMUNITIES

I speak to you today as Chair of a national organization of members who have decentralized television in an unprecedented manner. Across the nation, community media centers put television in the hands of the people, not just as passive consumers but also as information providers; and in communities with adequate resources,

the response has been tremendous. More than one million people have learned how to make television programs that serve the needs of their groups and themselves. By learning all aspects of television productions, they are able to speak for themselves, without a filter or gatekeeper.

Through live, interactive television, and through interface with local computer networks, access centers are taking the next step in providing community dialogue with today's technology. As new technologies develop, with the assistance of S. 2195, the Alliance looks forward to expanding the methods and the geographic areas in which community dialogue travels.

CONGRESS RECOGNIZES THE IMPORTANCE OF INFORMATION PROVIDERS IN A PLURALISTIC SOCIETY

Congress has traditionally recognized the need to encourage and facilitate the development and delivery of public telecommunications services. Specifically, it has recognized the importance of ensuring that all Americans have access to these services. Through the community service provisions of the 1984 Cable Act, Congress intended to promote diversity by guaranteeing that groups traditionally ignored by mass media would have the opportunity to speak via cable. It has in fact created those opportunities. African-American programming, programs in Spanish, Vietnamese, Farsi, Portuguese, and a wide range of political opinion programs fill PEG access channels. These channels and centers have fostered localism in communications, another goal of Congress, with programs as diverse and rich as are our local neighborhoods.

In his keynote address to the Alliance's 1993 National Convention this past July, the honorable Andrew J. Young, former United Nations Ambassador and former mayor of Atlanta spoke of the importance of access:

> * * * we see the public access movement as a continuation of the dream and the vision of the Civil Rights movement, and the human rights movement generally. What we were marching for was to get a hearing. Martin [Luther King] used to always quote Victor Hugo who said that, "Violence is the language of the unheard." When people explode in violence it is because they have been ignored, because they have been isolated, because they're frustrated that they have no access. We had to march for access, and marching just three or four blocks * * * normally got us thrown in jail. People brought out police dogs, people put fire hoses on us. We had to basically risk our lives just to say, "Wait a minute, we can't vote! We're not trying to burn anything down. We don't want to destroy the country. We just want the same citizenship rights and respect for our human dignity that is accorded to every other American citizen, and that ought to be accorded to every other person on the face of this small planet of ours." It was there that the dream of human rights was born that has swept across this planet. But that dream must be kept alive by some ongoing mechanism of communication.

PEG access is the most American of communications institutions, providing a free opportunity for all persons, regardless of race, creed, income, religion, or political ideology to express their opinions, share their cultures and improve their local communities. In an age of growing apathy and a lack of participation, groups using these channels stand tall in working to build their communities.

ALL HAVE THE OPPORTUNITY TO BE PROVIDERS

Perhaps the most powerful feature of the information superhighway is its ability to allow anyone to create and send information, and not just passively receive it. This allows citizens to interact better with each other and their government. It potentially can empower communities who feel misrepresented and over-looked. And it enables every person to participate as an equal, regardless of race or physical condition or geographic location. Yet there are many, possibly most, of our fellow citizens who will not be able to afford the connection, the transmission costs, and the special equipment needed.

If, in order to use the network, one needs a video camera, editing equipment and playback equipment, who will have access to it, even if the fiber link is built to every home? If, in order to take advantage of the network, one requires a computer, who will provide the computers to those who cannot afford them now? Many people expect that two segments of society will be created, the information-rich and the information-poor. I don't like that line very much because it seems to assume that only a minority—the poor—will lack full access to the network. Actually, depending on the way the network is designed, we consumers could end up paying for construction of an information highway that truly benefits the few, while excluding the vast majority of Americans. This suggests that from the start the network must be de-

signed so that its basic services include facilities, equipment and services required to make the information highway accessible to the entire community. We can do this simply—we already have a model. A section of the highway needs to be reserved like a public park for free use. Further, operating funds need to be available for community-based organizations like my own in Minneapolis to provide equipment, training and technical support. Community communications centers could help ensure that the benefits of the networks are universally available. One can imagine production centers adjacent to libraries, where a member of the community can produce a video, obtain access to the Internet, or participate long-distance in public meetings being held elsewhere in the community. It can be done; in fact, some access centers are already doing it.

Community media has made tremendous strides in communities when it has had the appropriate resources—channel capacity without charge and funding for equipment, training and outreach. Several visionary centers have launched into advanced services, showing us the possibilities for all Americans who are given access to emerging telecommunications systems.

An editorial in the Boston Globe that appeared on Human Rights Day, December 10, 1993, observed: "Everyone has the right to freedom of opinion and expression. Boston Neighborhood Network Television gives Boston residents and nonprofit institutions access to the airwaves through its own facilities and by providing training in the use of broadcasting equipment."

People who are informed and have the ability to shape their futures have unlimited abilities; they discuss issues, hammer out tough solutions, share rich and diverse cultural heritages, create inspired works of art, enjoy themselves and build stronger communities. If the American people are to continue to do all of this, we need meaningful access to the most powerful telecommunications systems of our day and to the emerging systems of tomorrow. We need this access preserved and expanded through the provisions of S. 2195.

THE PROMISE OF S. 2195

The opportunities for people to participate in economic, political, and cultural life depends on their ability to access and use communication and information services. Individuals need skills and tools to locate the communications pathways, information, and audiences in a timely fashion and in an appropriate form. Unequal access to communications resources leads to unequal advantages and, ultimately, to inequalities in social and economic opportunities.

S. 2195 provides vital communications opportunities to: nonprofit and community organizations using public, educational, and government access channels and centers; the public broadcasters; community radio broadcasters; state, local and tribal governments; schools; hospitals; and libraries through (1) dedicated, noncommercial capacity on the emerging telecommunications networks and, (2) funding to use that capacity. The bill accomplishes this without mandating large and expensive government programs which cannot gain public support. S. 2195 recognizes that America's greatest resource is its people.

S. 2195 recognizes the obstacles faced by non-commercial speakers. In particular, the Alliance agrees that there is a need for an outlet for the voiceless and powerless, and for resources for outreach and training in minority and underserved populations. The findings in S. 2195 recognize that:

- our democratic society will be improved by diverse viewpoints and perspectives;
- diverse populations need to be both providers and receivers of information;
- there is a need for government intervention; and
- there is a need for adequate resources to be provided.

The 20 year history of communities using PEG access demonstrates vividly one way in which these objectives have been met and continue to be met. In communities with resources, as I stated earlier, community use of PEG access channels has exploded. In such communities, over 20,000 hours of new programs is now produced each week—that's over one million hours of new programs a year. Let's look at how the findings of S. 2195 offer the promise of spreading this success to all communities, and let's look beyond the statistics to the real grass roots people already putting television to work for their groups and themselves.

IMPROVING OUR DEMOCRATIC SOCIETY THROUGH DIVERSE VIEWPOINTS AND PERSPECTIVES

Community channels have taken the characteristics of local C-SPANs across the nation, as local citizens have become more active in government through watching and participating in meetings, joining citizen committees and making direct contact to officials. Since the mid-1970's, a public access channel in Reading, Pennsylvania

has been operated as a fully interactive video and audio service from multiple sites throughout the region. People gather to discuss social security, city budgets, elections and other civic issues. Through the technology of split-screen TV, citizens can see and hear each other during the conversation. In Burlington, Vermont, Channel 17 provides live interactive coverage of numerous municipal meetings, press conferences, call-in programs for elected officials and exclusive election results coverage. Community TV in Knoxville, Tennessee programs an interactive bulletin board which links via computer to touch tone phones. Although the service was programmed primarily from 11 p.m. to 7 a.m., the bulletin board received over 250,000 calls during its first year. The most frequent category requested was job information—more than 22,000.

Alan Dachman, Executive Director of the Little City Foundation, the creator of Project VITAL (Video Induced Training And Learning), a unique video training program for people with mental retardation and developmental challenges has stated:

> We live in a country where the media are supposed to be for the people, especially the airwaves. And yet at tile same time, before access television, there were no grassroots opportunities, especially for people with mental retardation; they're as grassroots as it gets. If you take a look at what access is about—giving people opportunities—I can show you the least common denominator, the most segregated social group in our country, people with disabilities. And access empowered these folks to get out of institutions and get jobs and get apartments. And this is only the beginning.

The Little City Foundation spent $500,000 to launch Project VITAL. It currently has a staff of five people and an operating budget of more than $75,000. Project VITAL is being implemented in up to 20 access centers throughout the country.

DIVERSITY ON THE NETWORKS: INCLUDING ALL AMERICANS AS PROVIDERS AND RECEIVERS

Community media channels have served this purpose in cabled communities, both providing the outlets for speakers and the opportunity for others to listen. As Chairman Inouye highlighted in his remarks introducing S. 2195, entire communities benefit when nonprofit service organizations and their constituents gain access to a variety of communications media. The Chicago Chapter of the Black Nurses Association sends basic health care information to Chicago's 330,000 cabled homes, receives feedback and answers questions. Portland, Oregon seniors produce a series for local non-profits, public and community service agencies, giving a voice to those who are left out of the public view. And the South West Organizing Project in Albuquerque, New Mexico—a community based group that strives to empower the disenfranchised to realize racial and gender equality and social and economic justice—is committed to representing its own work rather than depending on the mass media to tell its stories.

THE NEED FOR GOVERNMENT INTERVENTION TO ENSURE UNIVERSAL SERVICE

The Alliance is concerned that to date the focus of discussion on universal service has been limited to wiring and providing instruments for all homes. While the ability to access the information highway is essential to the public interest, this ability alone does not make communications universally available in any real sense. The concept of universal service needs to incorporate some level of free training, access to equipment and technical support through local community communications centers. The Office of Technology Assessment agreed with this proposition when it stated:

> The question of promoting literacy in new communication technologies is inextricably intertwined with the question of socioeconomic factors and access to these technologies. But in a society where many will not be able to afford to buy technology for their homes, public-access facilities may be crucial to maintaining certain minimum levels of communication competence. When the telephone emerged in the early 1900's, one of the primary functions of public telephones was to allow people to learn to use them by watching others. Other public-access facilities—from schools to libraries—have traditionally provided a repository for the expertise, in both print and human form, to help promote communication or get information. * * * A new vision of the public-access facility, to help individuals cope with the complexities of information-age tools, is perhaps in order. "Critical Communications: Communications for the Future," The Office of Technology Assessment, 1990, page 232.

Universal service in the new interactive media should include PEG access services as found in the current cable television medium. We are pleased that the funding mechanism of S. 2195 would permit this. The expansion beyond current limitations

cannot be expected from commercial, for-profit media, and does not require large and expensive government programs which cannot gain public support. Two key provisions of S. 2195 would permit such expansion.

1. *Channel capacity on all networks*—Section 714(b) sets aside capacity on networks for use free of charge. Section (c)(1) presumes a reservation of up to 20 percent as appropriate. Section (d) defines a broad base of eligible public and non-profit entities, which would include PEG access centers.

2. *Infrastructure fund*—Non-commercial channels without funding will fail. Section (e) establishes a "Public Telecommunications Infrastructure Fund" based on contributions by the owners and operators of telecommunications networks. Sections (e)(2) (C) and (D) provide for the distribution of funds by State, local or tribal governments to the same groups eligible to use the channels.

We in the Alliance consider our first 20 years just a start. Community media has been limited by several factors which S. 2195 can change:

- only 20 percent of cable systems have community channels;
- cable franchising has provided inadequate community media resources in many areas; and
- cable TV, our primary outlet, currently reaches only 62 percent of American homes—vast areas of rural America are totally unserved.

For example, in 1987, the focus of the community outreach program for United Way in San Luis Obispo County, California was a weekly cable television series, "Good Neighbor Community Outreach." Produced entirely by volunteers, the program highlighted a different community agency each week and brought phone calls, visibility, and funds to the United Way. The idea for the program came from Dixie Adair Budke, executive director of Neighbors Helping Neighbors: "We have a lot going on in San Luis Obispo County—services that the people who have never had to link into the system wouldn't necessarily know about. We needed a vehicle to get that information across * * * because people do want to hear about good news * * * and it was certainly a need that hadn't been met through traditional media channels." "We're not professionals," she added. "We were very much amateurs, but it seemed to be okay because these were people that county members knew and trusted, and it was information they were hungry to know." The program ran successfully for one year but ended when the local cable operator closed its studio to community producers.

Arlington Community TV in Arlington, Virginia worked with County Government, Police and Fire, Emergency Communications, the Red Cross and other agencies on "Communicating Survival," a series of programs aimed at limited English proficient residents about vital public services. More than 2,900 tapes have been distributed to 33 states and countries. I think the Arlington example speaks to the need to connect communities to the broader network—a concept different from providing two-way communications within communities. Communities are, at the same time, unique and similar. Interconnection allows the same building between and among communities that two-way cabability promotes within communities. There are many communities like Arlington with large populations of people with limited English ability. The fact that Arlington had to send out approximately 2,900 tapes is testimony to the need to connect communities.

THE NEED FOR ADEQUATE RESOURCES

Communities need channel capacity and channels. Without funding, they will fail. In Chicago, the Universal Family Connection (UFC), a South Side service agency, uses the Chicago Access Network TV (CAN TV) bulletin board to recruit clients for their job training programs. Marcia Cloutier of UFC notes, "If you're not a big nonprofit with big name recognition, you can't get on mainstream TV. Public access has been fast, inexpensive and successful." The CAN TV message generated 295 calls to UFC, compared to 68 calls from all other sources. As a result, 175 people qualified for the UFC training and 50 got jobs. In addition, in Chicago there are over 8,000 nonprofits. 85-95 percent of them have budgets of under $100,000. Their work spans a broad range of service, from HW/MDS education to school reform. Historically, few of these groups have had access to television media because it is cost prohibitive, available to a select few, and dominated by commercial programming.

Boston's Answer Channel was created to link nonprofit service agencies to the people they serve. Live call-in programs on this project of the Boston Community Access and Programming Foundation now exceed 20 hours a week. Groups on the channel include Boston Foundation's Persistent Poverty Project, where parents discuss public education, and the Visiting Nurses Association, which covers topics including elder abuse, depression and flu shots.

Jeff Smith, Public Information Coordinator with St. Patrick Hospital in Missoula, Montana produced "Public Conversation," a seven week live call-in series on health care. Jeff says, I needed to communicate the depth of changes that are going to take place in health care, I know the health care community and I needed an extensive conversation—not just sound bites. People are so overwhelmed with messages, I needed to use several media, including Missoula Community Access TV."

COMMON THREADS IN COMMUNITY MEDIA PROGRAMS

Each of these groups of people and the programs they made to reach their communities shares several key characteristics. Community media centers empowered and enabled these people to make television work for them. In each case:

- community people who knew the issues the best had the opportunity to speak for themselves to their communities;
- public access channels were their only TV outlet, since their message could not sell commercials—the market system failed these groups; and
- massive volunteer effort of the community was the driving force in make the TV program a reality

TREMENDOUS VALUE IN COMMUNITIES

The modest resources—channels, services, facilities and equipment—provided through cable operators have served as "seed" money for tremendous participation by community groups and individuals. In Austin, Texas, community volunteer efforts are valued at ten times the access center's budget. Access centers have provided the resources which otherwise would have been outside the financial reach of most; communities have responded with massive amounts of volunteer effort. In Tucson, Arizona, the access organization provides services valued at $10.2 million, more than twelve times its budget. Access Sacramento provides services valued at $4.5 million, ten times its budget. These ratios are common for community-based access organizations.

Public access centers facilitate nonprofits' use of television media for public education, client recruitment, outreach, advocacy and other objectives. In Chicago over 2,000 nonprofit groups have used the access channels to communicate their messages. A number of jobs and training groups have said that the use of the access channel is their single most important recruitment mechanism. PEG channels introduce viewers to nonprofit services and community resources they never knew existed. A June, 1994 Chicago survey found that 92 percent of cable subscribers felt that the Chicago Access Network, or CAN TV, access channels were of value to the community. Respondents identified freedom of speech as the most important benefit, with 77 percent citing it as extremely or very important. Equal opportunity followed closely in importance. Over 60 percent cited additional benefits, including the local, noncommercial nature of CAN TV programs and the ability of residents to produce or provide her or his own programs and messages.

PEG programming is being watched. The National Clearinghouse for Community Cable Viewership Research at Western Michigan University correlated viewing patterns in 78 cable markets with nearly 2.7 million subscribers. That study shows that close to 40 percent of cable subscribers are tuning in to government meetings,[1] more than 37 percent watch local arts and entertainment programs, 36 percent view educational programs, 35 percent watch sports and 31 percent look to PEG access for health and wellness information.

CONCLUSION

The Alliance's mission statement is: In order for democracy to flourish, people must be active participants in their government, educated to think critically, and free to express themselves. The mission of the Alliance for Community Media is to advance democratic ideals by ensuring that people have access to electronic media, and by promoting effective communication through community uses of media.

Communication is a fundamental human right. Television and other electronic media are clearly the most powerful means of communicating in our age. The ability of a group or individual to maintain the basic right of effective communications is dependent on the ability to be an information provider as well as receiver. S. 2195 guarantees public access to advanced telecommunications networks. It promises

[1] Broadcasters have been providing less and less news and public affairs programming. A 1989 study published by Essential Information, "Short changing the Viewers: Broadcasters' Neglect of Public Interest Programming," found a 51 percent decrease since 1979 in the average percentage of issue-oriented public affairs programming between 6 a.m. and midnight on commercial television in the 50 television markets studied.

interconnectivity—citizens with governments, schools with libraries, health care providers with the sick, teachers with students and beyond. S. 2195 guarantees—in the spirit of the Juneteenth celebration—that all Americans regardless of race, income, or class will have access and the opportunity to fully participate in the information age and the 21st Century.

Thank you for the opportunity to speak today on S. 2195, and, more importantly, thank you for considering the importance of our local communities in the development of the national information infrastructure.

Senator INOUYE. Thank you very much, Chairman Riddle. May I now call upon Mr. Blau.

STATEMENT OF ANDREW BLAU, DIRECTOR, COMMUNICATIONS POLICY PROJECT, BENTON FOUNDATION

Mr. BLAU. Good morning, Sir.

Mr. Chairman, members of the committee, thank you for inviting me here today. I am the director of the Communications Policy Project at the Benton Foundation. The project is a nonpartisan foundation sponsored initiative to strengthen public interest efforts in communications policy. We seek to educate the public, and nonprofits in particular, about the critical issues in today's communications policy debates. Moreover, we have been working to develop public interest policy options that reflect what we see as the emerging industry structures and evolving technological trends.

I have submitted my written testimony for the record, so rather than repeat it here allow me to note some of its key points. I would like to begin by commending to your attention to this article that appeared on the front page of the New York Times this Monday under the heading: "Some cable systems are cutting C–SPAN for other channels." The article reports that, in part as a result of must-carry, "C–SPAN and its sister channel, C–SPAN II, have been cut back on cable systems serving more than 4 million households, and in some cases dropped altogether."

The article continues:

> What is surprising is the extent to which C–SPAN, the cable industry's contribution to public service, seems to have borne the brunt of the cuts. * * * Congressional officials and cable-industry analysts say C–SPAN has been hit hardest by the cuts because operators can make more money with channels offering Fantasy Island reruns or home shopping items like zirconium rings. * * * It is the least profitable, so it is the obvious one to go, Jessica Ref, a media analyst with Oppenheimer & Company, said.

Now, I am not picking on the cable industry, merely pointing out the fundamental pressures in a commercial system. So, it should come as no surprise that throughout our efforts over the last year working with groups across the country, one theme has been sounded repeatedly, and that is the need for policymakers to create noncommercial public rights-of-way or some similar mechanism, to ensure that the advanced networks that we are headed toward serve us with more than games, movies, and shopping.

Moreover, according to a recent bipartisan poll that was conducted for the foundation, the American public wants more. By overwhelming majorities, they support a strong Government role that asserts the importance of education, health, and community benefits in developing these new networks. The American public wants policymakers to enact programs and policies that will deliver those services.

I would like to ask to introduce the report, which documents this public support, into the record, if that would be appropriate.

Senator INOUYE. It will be made part of the record.

[The information referred to follows:]

WHAT PEOPLE THINK ABOUT NEW COMMUNICATIONS TECHNOLOGIES

Americans clearly want Government to have an active role in the emerging debate over new communications technologies. They want Government to be a leader in helping these technologies evolve, in ensuring universal access, and in keeping the public interest uses of the new communications technologies in the forefront. They also support a variety of actions on behalf of the public interest—from Government grants to corporate donations.

What the American public most desires from the new communications technologies are educational and informational services. People are not all that interested in 500-channel capabilities or in-home shopping. But they are very interested in interactive college courses and computer libraries.

A strong majority of Americans support Government's taking an active role in addressing issues of access, knowledge, and cost to make these services universal. One of the reasons is that they do not want to widen the gap between the haves and the have-nots. They also want to keep the public interest in this debate. And they want Government to help the technology evolve, to make sure that it is universally accessible and affordable, and to promote applications in education and health care.

Here are the findings of a telephone survey of 1,000 likely voters chosen at random to be representative of the American electorate:

- Government should provide grants to help communities and nonprofit groups make new technologies available in schools, libraries, and hospitals (77 percent support; 18 percent oppose).
- Government should require companies that profit from the new technologies to dedicate a part of their resources to supporting community uses and community access to Government information (76 percent support; 18 percent oppose).
- Government should support education programs that adults can use from home over a computer or two-way television—or that children can use to help them with their homework (70 percent support; 25 percent oppose).
- Government should ensure that a nationwide information system will be accessible to everyone in every part of the country (67 percent support; 26 percent oppose).
- Government should provide information to teach people about the new technologies and how to use them (64 percent support; 31 percent oppose).
- Government should set costs for services cheap enough for everyone to afford (56 percent support; 36 percent oppose).
- Government should not allow communications companies to raise subscriber rates today to enable them to invest in services for the future (58 percent oppose; 33 percent support).

Mr. BLAU. Thank you.

Mr. Chairman, I must commend you for your leadership in introducing a measure that puts the issue of public infrastructure and public benefit squarely on the table. While the foundation does not take positions for or against pending legislation, I want to speak this morning about the unique role that nonprofits play in delivering public-interest benefits and the need for policies that ensure that nonprofits have the opportunity to play a similar role in the Information Age.

If we look at the press releases and corporate videos, they describe a digital universe of enriched education, improved health care, effective social service, and widespread community participation, not to mention instant access to information, arts, and literature. But if that sunny scenario is to become a reality, we must first acknowledge the likeliest sources for those benefits; second, ensure that those sources have access to the network; and, third, create a means to support those efforts.

That means turning to America's nonprofits. They are our leading experts in education, health care, social service, and the other areas. Today there are just under 1 million tax-exempt voluntary and philanthropic organizations which together account for 10.4 percent of total U.S. employment. These organizations are our traditional means of dealing with a wide range of human needs that we have always acknowledged lie outside the bounds of the commercial marketplace: the health and education of our children, the fabric of local community, the ties of culture and history, and the vigor of our democracy.

If that legacy is to be carried into the Information Age, we must include nonprofits in the planning and the implementation of these advanced networks and we must make them part of the basic service, not an afterthought or a corrective to a commercial system that, quite predictably, fails to serve noncommercial values. We must acknowledge their special attributes. We must build policy that includes them from the outset.

But we must also acknowledge the constraints under which nonprofits deliver their services. While the nonprofit sector in the aggregate represents a substantial portion of the economy, especially in those key public service fields, most nonprofits are very small organizations. They have small budgets, and they depend on volunteers. In fact, over 70 percent of the country's 501(c)(3) organizations had total revenues below $25,000. Of the remaining 30 percent, the median annual expenses were just $157,000. And these figures do not reflect the full value of what they deliver because many nonprofits rely on volunteer efforts to further stretch their resources.

In light of these basic realities of how nonprofits function, we cannot assume that they can compete on fully commercial terms with the private sector. What works for QVC or HBO will not work for the PTA, the local hospital, or the League of Women Voters, yet these are the very institutions that must have access if we are to see the social benefits of advanced telecommunications.

Admittedly, as we have already heard this morning, setting communications policy to promote noncommercial speech is not a new idea. Policymakers have long recognized the need to balance marketplace forces with the Government's interest in encouraging diverse sources of noncommercial speech. Consider, for example, the postal system's lower nonprofit rates; reservations of radio spectrum for noncommercial and educational use; noncommercial television channels and the Corporation for Public Broadcasting, as well as the Public Telecommunications Facilities Program; the FCC's original rules to create noncommercial public access to cable television, as well as the access requirements that Congress codified in the Cable Communications Policy Act of 1984.

And while the telephone network, as a fully switched system, has never needed a set-aside per se, the traditional universal service programs at both the Federal and State levels acknowledge that access to essential communications networks is far too important to be determined by market forces alone. In addition, I might add that 12 States report reduced-rate tariffs for schools, charitable organizations, or religious institutions.

Without such measures which acknowledge the needs of noncommercial users, there is, frankly, no evidence that noncommercial public service would have any significant access even to today's communications systems. As a Commerce Department report noted in 1988, "the FCC action, to set aside frequencies, was crucial to allowing the growth of educational broadcasting stations." In those instances where commercial providers initially promised to provide for noncommercial needs such as education, our experience has been that without Government mandates those promises have often been forgotten in favor of those commercial pressures.

Perhaps that is not surprising. These providers are commercial firms pursuing commercial incentives. But the lesson we must draw is that we cannot rely on a purely private commercial marketplace to deliver inarguably noncommercial public benefits.

Let me conclude by saying that the American public is being asked to agree to a trade: the rewrite of U.S. communications policy in return for a great rush of public-interest benefits. But if we want those public-interest benefits, we must act now to create the noncommercial public spaces in which those services can flourish.

And we must act quickly, because the telephone, cable, wireless, and other companies are not only building networks, they are building expectations. Without the full range of nonprofit organizations as information and program providers, these expectations will be low. If, instead, we expect great public benefits from the networks of tomorrow, we must act accordingly and set policies that will make them possible. If nonprofits are guaranteed a place at the table to help shape these systems and their services, if they are given the support to use them effectively, the nonprofit sector will make good on the promise of enhanced public benefits in the Information Age.

Thank you very much, sir.

[The prepared statement of Mr. Blau follows:]

PREPARED STATEMENT OF ANDREW BLAU

Mr. Chairman, members of the Committee, thank you for inviting me here today. My name is Andrew Blau, and I am the Director of the Communications Policy Project at the Benton Foundation.

ABOUT THE COMMUNICATIONS POLICY PROJECT

The Policy Project is a nonpartisan, foundation-sponsored initiative to strengthen public interest efforts in communications policy. It is our belief that the concurrent pressures of digital convergence, industry mergers, and renewed interest in rewriting essential elements of U.S. telecommunications policy offer a once-in-a-generation opportunity to create public policy that shapes the emerging communications system to serve the public interest.

Benton's Communications Policy Project is founded upon the belief that the vigorous participation of the nonprofit sector in these debates will strengthen the prospect for public interest outcomes. To that end, we seek to educate the public, and nonprofits in particular, about the critical issues in today's communications policy debates. Moreover, we seek to develop policy options that reflect emerging industry structures and evolving technological trends, so that public interest advocates may speak effectively to where we are heading rather than simply look back to where we have been.

Within the last year, the Communications Policy Project has engaged in a host of activities that inform my testimony here today. Among other efforts, we:

• Organized "Shaping the National Information Infrastructure: The Public Interest Summit," a groundbreaking event that brought together almost 700 nonprofit leaders from across the country with key Administration officials including Vice-President Al Gore to discuss the public interest implications of the Administration's

National Information Infrastructure (NII) initiative. Participants included former Surgeon General Dr. C. Everett Koop, Ralph Nader, Mitchell Kapor (Chairman, Electronic Frontier Foundation), Raul Yzaguirre (President, National Council of La Raza), Morton Bahr (President, Communications Workers of America), and Peter Goldmark (President, The Rockefeller Foundation).

- Commissioned research on universal service, documenting the current problems in achieving universal telephone service today and developing proposals for supporting universal service in a competitive, multi-service environment. A one-day seminar we organized on these issues attracted nearly 200 policy analysts, FCC and NTIA staff, public interest activists, communications and computer industry executives, and nonprofit leaders from far beyond the traditional boundaries of telecommunications policy.
- Organized (with the Center for Policy Alternatives and the Center for Civic Networking) an invitational meeting for state and local officials, community networking experts, academics, nonprofit leaders and federal officials to create recommendations for how communications policy might support democratic participation at the state and local level.
- Conducted focus groups, reviewed recent studies, and conducted a nationwide poll to gauge American attitudes toward new communications technologies. The resulting research report by Melman Lazarus Lake was recently cited by Education Secretary Richard Riley in testimony before this Committee.
- Published an overview of industry test-bed sites, where telephone and cable companies are modeling the networks of the next century.
- Catalogued over 160 applications of telephone, computer or cable-based technologies that deliver health and education benefits to the home. The catalogue documents some of the potential public interest benefits of advanced infrastructure.
- Convened a series of meetings with Libraries for the Future to explore how to extend into the information age the principle of "public spaces" that have supported democratic participation, cultural exchange and a robust marketplace of ideas since this nation was founded. The meetings brought together many of the key stakeholders including representatives from library groups, public broadcasting, community media, civic networking and education to explore what would be needed to establish public spaces on the National Information Infrastructure.

THE NEED FOR PUBLIC INFRASTRUCTURE

Across these and other efforts, one theme has been sounded repeatedly: the need for policy makers to create noncommercial public "rights of way" or similar mechanisms to ensure that NII serves us with more than games, movies and home shopping. Moreover, according to a recent poll conducted for Benton, the American public wants more. By overwhelming majorities, they support a strong government role that asserts the importance of education, health and community benefits and that enacts programs and policies that will deliver those services.

However, much of the current telecommunications policy debate has focused on how to secure a robustly competitive environment for the telecommunications industries to build and operate an advanced network of networks. What has been missing is a parallel focus on those communications and information activities that will come from the nonprofit sector, and the specific requirements to ensure that nonprofits will be able to take their rightful place as information providers.

The introduction of S. 2195, "The National Public Telecommunications Infrastructure Act of 1994," marks a crucial and long-overdue acknowledgment that a fully developed "National Information Infrastructure" must include both commercial and noncommercial elements from the beginning if its true potential is to be realized. The nonprofit sector is a significant and growing part of our economy. It is a focal point for the delivery of public benefits and the civic culture upon which democratic participation depends.

Mr. Chairman, I must commend you for your leadership in introducing a measure that puts the issue of "public infrastructure"—and public benefits—squarely on the table. While the Benton Foundation does not take positions for or against pending legislation, I am here this morning to speak to the unique role that nonprofits play in delivering public interest benefits to the American people and the need for policies that ensure that nonprofits will have the opportunity to play a similar role and advance in the information age.

NONPROFITS: THE ENGINES OF SOCIAL BENEFIT

The press releases and corporate videos coming out of telephone and cable companies describe a digital universe where advanced telecommunications delivers enriched education, improved health care, effective social service, and widespread com-

munity participation, not to mention instant access to information, arts, and literature. Yet one of the most underdeveloped components in today's telecommunications policy debates is how to ensure that those benefits will, in fact, be delivered once the "information superhighway" is built.

If the optimistic scenario we hear about so often is to become reality, we must we must first acknowledge the likeliest sources for these benefits; second, ensure that they will have access to the advanced networks that will carry the services; and third, create a means to support their efforts.

America's nonprofits are our leading experts in education, health care, social service, the arts and humanities, and community participation, because they stand at the front lines of delivering these services every day. Indeed, nonprofits have been created specifically to serve the public and provide public benefits.

By legal definition, they must serve a public purpose and may not make and distribute profits. These characteristics have been codified in the U.S. Tax Code in recognition of the distinct role nonprofits play in the delivery of a wide range of socially valuable benefits.

Nonprofits are a uniquely American approach to providing those benefits. To an extent not seen anywhere else in the world, we have augmented the traditional poles of business and government with a third sector composed of charitable organizations that facilitate many functions that other countries have asked their governments to provide. Here we rely on nonprofits to deliver key social services. While nonprofits may get some support from government, the vast majority of nonprofit funding comes from private sources.

As a result, we have created a system that takes many social services off government ledgers and into a private, noncommercial sector. By so doing, we deliver a remarkable array of services at a minimal cost to taxpayers. While the total revenues for the nonprofit sector (excluding religious congregations) were $416.4 billion in 1990, just 7.1 percent came from government grants, while the rest came from private donors and program service revenue.[1] Thus, for every dollar the government put toward these services, nonprofits attracted an additional $13 from other sources.

Today, there are just under one million tax-exempt voluntary and philanthropic organizations such as schools, hospitals, social service organizations, civic, social, and fraternal organizations, advocacy groups, arts and cultural organizations, foundations and religious institutions. According to the most recent figures available, the nonprofit sector accounts for 10.4 percent of total U.S. employment.[2] Among the nonreligious organizations in this sector, 36.6 percent provide human services, 20.4 percent provide health care services, 13.6 percent deliver education, 11.4 percent provide arts, culture or humanities services, and 8.7 percent deliver other public benefits, such as civil rights work, community improvement efforts, public affairs information, and scientific information.[3] Charitable organizations overwhelmingly provide service to clients at the local and regional levels. Almost 40 percent of these organizations report that they provide local service, while 43 percent serve multicounty, statewide and multi-state areas.[4]

In sum, nonprofits are our traditional means of dealing with a wide range of human needs that we have long acknowledged lie outside the boundaries of the commercial marketplace: the health and education of our children; the fabric of local community, knit together through private voluntary associations; the ties of culture and history that link people across generations; and the vigor of our democracy, animated by civic associations, advocates and citizen groups. These services get delivered thanks to a legal and policy structure that acknowledges the special role that nonprofits play in education, health, culture, communities, and our democracy.

If that legacy is to be carried into the information age, we must include nonprofits in the planning and implementation of the NII and make them part of "basic" service, not an afterthought or corrective to a commercial system that predictably fails to serve public interest values. We must acknowledge their special attributes and unique contributions, and build policy that includes the nonprofit sector from the outset.

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[1] Hodgkinson, Virginia A., Murray S. Weitzman, Stephen M. Moga, & Heather A. Gorski, A Portrait of the Independent Sector: The Activities and Finances of Charitable Organizations (Washington, D.C.: Independent Sector), 1993, pp. 26-27, Table 9 (hereinafter, Portrait).

[2] Independent Sector, Highlights and Summary Data from The Nonprofit Almanac 1992-1993: Dimensions of the Independent Sector (Washington, D.C.: Independent Sector), 1993, pp. 1-2. The Nonprofit Almanac 1 992-1993 . Dimensions of the Independent Sector (San Francisco: Jossey-Bass), 1992 (hereinafter, Highlights).

[3] Portrait, pp. 9-10.

[4] Ibid., pp. 19-20.

NONPROFITS AND TOMORROW'S INFORMATION INFRASTRUCTURE

Many of the services that nonprofits provide today are in the very areas that could be revolutionized by the application of telecommunications technology. As noted above, nonprofits are concentrated in areas such as human services, health care, education, arts, and humanities, and they deliver other public benefits, such as civil rights work, community improvement efforts, public affairs and scientific information. These are the very areas where futurists and industry promotions suggest that advanced networks can provide direct benefits to the public.[5] And through experiments across the country, the potential is becoming clearer: nonprofit activities can be enhanced through communication and information technology.

NTIA's new grant fund, the Telecommunications and Information Infrastructure Applications Program (TIIAP), offers a powerful indication of the potential that we can capture. As the members of this Subcommittee well know, the program will make $24 million dollars available in FY94 to nonprofit institutions, as well as state and local governments, to create telecommunications plans and to demonstrate applications in health, education, community service, and other public interest areas. Announced the first week of March, almost 1100 state and local governments and nonprofits submitted applications by the May 12 deadline, just over 60 days later. Applications came from all 50 states and the District of Columbia, and requested $556 million in assistance funds this year, over 20 times the amount available. There is clearly a pent-up demand from the very groups identified in S. 2195 to become active users and developers of the NII.

ACCOMMODATING THE NEEDS OF NONPROFITS

But if nonprofits are to take their rightful place in shaping tomorrow's information infrastructure, we must acknowledge the constraints under which they deliver their invaluable services and craft policy accordingly.

While the nonprofit sector in the aggregate represents a substantial portion of the economy, especially in the key public service fields, most nonprofits are small organizations with small budgets, who depend on volunteers to deliver their services. Excluding religious congregations, nonprofits had $416.4 billion in revenues in 1990 and $395.3 billion in expenses that year.[6] In particular, nonprofits in health care spent $227.5 billion; in education, $67.8 billion; in human services, $37.9 billion; and $13.4 billion in arts and culture.[7]

Yet many of these services were provided by small organizations. IRS filings from 1989 reveal that over 70 percent of the country's 501(c)(3) organizations had total revenues below $25,000. Of the remaining 30 percent, the median annual expenses were $157,000, with median assets of $158,000.[8]

These figures do not reflect the full value of what nonprofits deliver because many nonprofits rely on volunteer efforts to further stretch their resources. In 1989, 41 percent of total employment among nonprofits was volunteer time. Volunteers accounted for 74 percent of total employment in religious organizations, 67 percent of total employment in arts and cultural organizations, 62 percent of total employment in civic, social, and fraternal organizations, 43 percent in social and legal services, 22 percent in education, and 15 percent in health services.[9]

In light of these basic realities of how nonprofits function, we can not assume that they can compete on fully commercial terms with the private sector. What works for QVC will not work for the PTA, the local hospital, or the League of Women Voters, yet these are the very institutions that must have access if we are to see the social benefits of the NII.

CRAFTING COMMUNICATIONS POLICY TO PROMOTE NONCOMMERCIAL SPEECH

Communications policy has long acknowledged the special roles and needs of nonprofit, charitable and public institutions, as well as the need to balance pure marketplace forces with the government's compelling interest in encouraging diverse sources of noncommercial speech over communications networks of all kinds.[10]

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[5] See, for example, Bell Atlantic, Delivering the Promise: A Vision of Tomorrow's Communications Consumer (1989); Pacific Telephone, The Intelligent Network Task Force Report (1987); Holliday, C. and V. Junkman, "The Integrated Broadband Network—How Will It Evolve," Telephony, August 12, 1991, p. 28.

[6] Portrait, pp. 26-27, table 9; p. 38, table 13.

[7] Portrait, calculations based on Figure 45, p. 43.

[8] Highlights, p. 12.

[9] Nonprofit Almanac, p. 7.

[10] Compare, for example, U.S. Congress, Office of Technology Assessment, Critical Connections: Communication for the Future, OTA-CIT-407 (Washington, D.C.: U.S. Government Print-

• The postal system has a multipart rate structure with designated "nonprofit rates" (third class bulk). Nonprofit rates make a substantial difference in the ability of nonprofits to distribute information to their own members and the public at large.

• Reservations of radio spectrum for noncommercial and educational use have been discussed since before the FCC was created in 1934. In January, 1938, the FCC allocated channels for noncommercial educational radio, principally for AM. In 1945, 20 FM frequencies were allocated for noncommercial and educational users.[11]

• Specially designated noncommercial television channels were allocated as part of the original VHF/UHF allocations in 1952. Under the leadership of FCC Commissioner Frieda Hennock, 242 TV channels (80 VHF and 162 UHF) were reserved for noncommercial and educational use. As an influential Commerce Department report noted in 1988, "This FCC action, to set aside frequencies, was crucial to allowing the growth of educational broadcasting stations."[12]

• In 1967, Congress created the Corporation for Public Broadcasting to provide funds for program production for both public radio and public television, as well as stimulate the development of public broadcasting entities. Those efforts joined the Public Telecommunications Facilities Program, which, since its inception in 1963, has made approximately 2700 grants totalling $448 million to strengthen and support public broadcasting facilities. The commitment to public telecommunications has been updated and extended as recently as 1992, when Congress found that "it is in the public interest for the Federal Government to ensure that all citizens of the United States have access to public telecommunications services through all appropriate available telecommunications distribution technologies. * * *"[13]

• In 1972, the FCC adopted its first set of comprehensive rules to regulate the cable industry, including a requirement that all cable systems in the 100 largest television markets "shall maintain at least one specially designated, noncommercial public access channel available on a first-come, nondiscriminatory basis." In addition, the rules specified that the cable operator "shall maintain and have available for public use at least the minimal equipment and facilities necessary for the production of programming for such a channel."[14] Related access requirements were codified in the Cable Communications Policy Act of 1984 at Section 611.[15] Substantial and socially significant use of these channels is being made by nonprofits across the country.[16]

• Although the telephone network, as a fully switched system, has never had noncommercial channels set aside, the traditional universal service programs at both the Federal and state levels acknowledge that access to essential communications networks is too important to be determined by market forces alone. In addition, 12 states report reduced-rate tariffs for schools, charitable organizations or religious institutions.[17]

Without such measures, which acknowledge the needs of noncommercial users through reserved capacity, support mechanisms and/or preferential rates, there is no evidence that noncommercial public communications services would have any significant access to today's communications systems. In those instances where commercial providers initially promised to provide for noncommercial needs such as education, our experience has been that without government mandates, those promises have been forgotten in favor of commercial pressures. While perhaps not surprising inasmuch as these providers are commercial firms, the lesson must be that we can not rely on a purely private, commercial marketplace to deliver noncommercial public benefits.

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ing Office) 1990: "Government policy to encourage the creation and development of local community-based information has a history going back as far as the early postal service." p. 192.

[11] Ibid.

[12] Mitchell, Helena, "Public Broadcasting," in NTIA Telecom 2000: Charting the Course for a New Century, NTIA Special Publication 88-21 (Washington, D.C.: U.S. Department of Commerce) October 1988, p. 575.

[13] Cable Television Consumer Protection and Competition Act of 1992.

[14] Cable Television Report and Order on Rules and Regulations Relative to CATV Systems, 36 F.C.C.2d 141(1972). While these access rules were later struck down, the Court's rationale was that the Commission had exceeded its statutory authority, not that the underlying concept was unsound. *Midwest Video Corp.* v. *FCC*, 571 F.2d 1025 (8th Circuit, 1978), aff'd on other grounds, 440 U.S. 689, 1979.

[15] 47 U.S.C. 531.

[16] See, for example, Nicholson, Margie, Cable Access: Community Channels and Productions for Nonprofits (Washington, D.C.: Benton Foundation & Center for Strategic Communications) 1990.

[17] NARUC Compilation of Utility Regulatory Policy 1991-1992, p. 251, table 115 ("Reduced Telephone Rates for Non-Profit Organizations").

THE PUBLIC SUPPORTS DEDICATING RESOURCES FOR NONCOMMERCIAL USE

According to a recent nationwide poll conducted for the Benton Foundation, the American public, by a wide majority, supports government action to ensure that the industry turn back some of its resources to community use. In a poll of 1,000 likely voters jointly conducted by the Tarrance Group and Mellman Lazarus Lake, 76 percent of respondents support or strongly support the statement:

> Government should require companies that profit from the new [communications] technologies to dedicate part of their resources to supporting community uses and community access to government information.

Only 18 percent of respondents oppose the statement.[18]

Such a result suggests surprisingly strong support among the American public for a government mandate that ensures that a portion of the coming communications resources be made available for noncommercial, public use.

CONCLUSION

Mr. Chairman, the American public is being asked to agree to a trade: the rewrite of U.S. communications policy in return for a great rush of benefits, including easy access to improved health care services; enriched education for our children; a world-wide web of libraries that puts the world's latest information at our fingertips; faster access to government information and a wide range of government services; and electronically aided participation in local, state and national civic affairs.

But what if all we get are the movies, games and shopping, while the benefits for which we traded away 60 years of telecommunications regulation keep receding behind the horizon? We will have traded away a rich legacy of public interest principles in return for a digital mall.

And while there may be a bookstore, there is no library at the mall. There is no school or health care clinic there either. The mall is not even open for free political dialogue. The mall is a private sector initiative with private sector benefits of consumer choice and convenience. Yet we do not rely on mall to deliver K-12 education, health services, noncommercial access to information, or basic government services. If these—the true public interest benefits—are to be delivered, we must also act now to create the noncommercial, public spaces in which these services can flourish. We must build in the nonprofit sector to the planning and implementation of the next century's communications systems and support nonprofit efforts to provide noncommercial services.

It is imperative to act quickly, because the telephone, cable wireless and other companies are not only building networks, they are building expectations. Without the full range of nonprofit organizations as information and program providers, those expectations will be low. If instead, we expect great public benefits from the networks of tomorrow, we must act accordingly and set policies that will make them possible. If nonprofits are guaranteed a place at the table to help shape these systems and their services, and given the support to use them effectively, the nonprofit sector will make good on the promise of enhanced public benefits in the information age. Thank you.

Senator INOUYE. Thank you very much, Mr. Blau. As you may know by the bells, the Senate is in the process of having a rollcall vote, so we will have to excuse ourselves. When the subcommittee returns we will call upon Dr. Price to discuss a question that is very fundamental to this bill. Opponents have argued that the set-aside legislation violates the first and fifth amendments, and we would like to make certain that we are within the constitutional requirements. We will stand in recess for 10 minutes.

[A brief recess was taken.]

Senator INOUYE. Let us resume our hearing, and now may I call upon Professor Price.

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[18] Mellman Lazarus Lake, What People Think About New Communications Technologies, Communications Policy Briefing 2 (Washington, D.C.: Benton Foundation) 1994. The Briefing reports the results of a nationwide survey of 1 ,000 men and women. The survey was a telephone poll of likely voters chosen at random to represent the American electorate. Respondents were asked seven questions about the government's role in providing new communications technologies, as well as additional demographic questions. The survey results have a margin of error of plus or minus 3.1 percentage points.

STATEMENT OF DR. MONROE E. PRICE, PROFESSOR OF LAW, BENJAMIN N. CARDOZO SCHOOL OF LAW, YESHIVA UNIVERSITY

Dr. PRICE. Thank you very much, Senator Inouye. About 70 years ago, at the dawn of another media technology, before the passage of the Radio Act of 1926, there were visionaries in Congress who saw the responsibility of Government to consider the public uses of the new medium, and I quote a few of these pioneers in my written testimony, pioneers who said that the privilege of these vast systems that change communications should not be a right of selfishness but rather "an assurance of the public interest to be served."

This historic legislation, S. 2195, marks another important moment at the dawn of another communications era. For those Senators and Congressmen in the mid-1920's, uncertainty about technology and the social implications could have meant a paralysis of action, but it did not, and similarly today I think you have done something which is extremely important. You have not allowed the uncertainty about the shape of future technology to block public input.

S. 2195 strikes a balance. It shows a kind of flexibility by delegating to the FCC appropriately, but it also provides direction in the 20-percent reservation set-aside. It is legislation that sets forth a framework for a public role in the national information infrastructure, but it does it in a way that complements industry growth, allows for breathing, and for discretion in an administrative agency that can measure change in the communications environment.

In thinking about the constitutional questions, it is important to put all of this in context. Government, and the Federal Government particularly, has had a continuous and important part to play in ensuring and enlarging the machinery of debate, the flow of information, and the opportunity for fulfillment of individual rights.

Congress in this century saw its role as establishing an infrastructure for radio and television unique to the United States. It set aside spectrum frequency for educational entities, and over time built an impressive network of public radio and television stations.

The American communications industry turns to Congress to protect them against unfair competition, for incentives, and to ensure the capacity to compete in foreign markets. The American public turns to Congress to provide a fair and open system in which there is an opportunity, to the extent possible, for all to speak, and with luck to be heard.

The Communications Act of 1984, the 1984 act, the 1992 Cable Act, and other legislation employ democratic values to ensure that technologies of communication become technologies of freedom. The national public—and I am using a phrase of Ithiel de Sola Pool, a great communications scholar in that respect.

The National Public Telecommunications Infrastructure Act is a continuation of that tradition. The constitutional point is that Congress has been called upon to help in finding and shaping the building blocks of communication by industry, and now is called upon to establish the building blocks of democratic government. That is what this bill does.

Congress assisted cable television in obtaining fair access to copyrighted material and to the means for originally stringing cable. Congress has enabled program suppliers to have nondiscriminatory access to multichannel carriers. Congress had a substantial role in the design of spectrum allocation and its award among competing parties. These steps—and the NPTI is a further development of this role—are constructive of an enabling of speech, and has nothing to do with the history of censorship.

This act weaves its way through the complexities of the constitutional obstacles in an ingenious way. The two-step process that you have put into this bill of reserving space and then having it allocated by the FCC to State and local entities is an imaginative way of dealing with the problems presented to the courts, and presented to Congress in connection with the 1992 Cable Act, questions still to be resolved.

I think that notwithstanding the result in the *Turner Broadcasting System* case the legislation as drafted incorporates a substantial means of coping with the kinds of problems that were there presented through the reservation of these channels.

S. 2195 recognizes that basically physics determines what is in the inert wire, but it is law and social organization: the activity of the Congress of the State legislatures, of industry all working together that determines the architecture—not the content— of what goes into the wire and what goes out of the wire. The growth of communications in this country has been a cooperation between Government and industry, and S. 2195 is a further step in that direction.

I commend you for S. 2195, and it is an honor to be on this panel. Thank you.

[The prepared statement of Dr. Price follows:]

PREPARED STATEMENT OF MONROE E. PRICE

It is a pleasure to testify on the constitutionality of the proposed National Public Telecommunications Infrastructure Act.

The Act is important to democratic society, instrumental in the process of defining the architecture of communication for the twenty-first century. I am professor of law and director of the Howard Squadron Program on Law, Media and Society at the Benjamin N. Cardozo School of Law, Yeshiva University. For the last twenty-five years, I have written about broadcasting and telecommunications issues. I was Deputy Director of the Sloan Commission on Cable Communications and, in 1967, on the staff of the President's Task Force on Telecommunications Policy. In the early days of cable, I have written on the role of citizens in gaining access to the then-new media technologies.[1]

I shall comment on some technical constitutional questions appropriately asked about the NHIA, but first it is important to have a sense of the constitutional setting in which this Congress acts.

There's a romantic idea of the constitutional history of communications, debate and the press in the United States. That history—true in large part—is one in which 150 years of newspapers, with a tradition of immunity from government interference, is followed by a heady and rapidly changing set of new technologies, each of which suddenly calls into play state and local and federal intervention. But I see our history as one in which government (first local and then joined by the national government) had a continuous and important part to play in ensuring and enlarging

[1] Cable Television: A Guide for Citizen Action (Pilgrim Press 1972) (with J. Wicklein) also published in Italy as TV Cavo (Bompiani Press 1973) (sponsored by the Markle Foundation and the United Church of Christ to assist local public officials and community groups in understanding cable television).

the machinery of debate, the flow of information and the opportunity for fulfillment of individual rights.[2]

At the very foundation of American life, it was the town or village, acting through its government, that determined the existence of the town green, the place for a commons for debate and discussion. Government encouraged post roads and provided subsidies for newspapers that carried public information. Government was a necessary part of forging a nation out of a series of frontiers by enhancing communications and the exchange of ideas. Government ensured the establishment of roads to facilitate discourse among an otherwise disconnected people. Later, government had a role in knitting the country together through the encouragement of railroads, telegraphy, and telephony. Still later, the patterns by which airlines set their routes and interstate highways were mapped had extraordinary implications for communications and democracy. Even the history of government support for land grant colleges and the general encouragement of education is part of this process.

In that context, the government's participation in achieving a great and national system of broadcast licensees, first in radio and then television is understandable. Congress saw its role as building an infrastructure for radio and television that was unique to the United States, cognizant of regional differences, that assured competition, set aside spectrum frequency for educational entities and that, over time, built an impressive network of public radio and television stations. I have had the recent experience, as part of President Jimmy Carter's Commission on Radio and Television Policy in the former Soviet Union, to see how difficult it is to turn technologies of oppression and statism to technologies of freedom. In the United States, a constant Congressional purpose has been to ensure that these technologies serve public debate.

This historic Congressional role, encompassing so many instruments of communication, has as a common denominator the design of the infrastructure for a particularly American kind of freedom. This role, so far from being constitutionally suspect, is an essential and constructive part of American government. Its performance is essential to American political life and American democracy. Whatever mechanism was important for increasing discussion and debate and the spread of citizenship—the government had some role in ensuring its underpinning and success. All of this was part of a great partnership for democracy, a partnership among government, industry and the people.

The National Public Telecommunications Infrastructure Act is a continuation of that tradition.

The constitutional point is that Congress has been called upon to help in finding and shaping the building blocks of communication and democratic government. It has assisted cable television in obtaining fair access to copyrighted material and to the means, originally stringing cable. It has enabled program suppliers to have nondiscriminatory access to multichannel carriers. Congress has had a substantial role in the design of spectrum allocation and its award among competing parties. These steps—and the NPTIA is a further development of this role—is constructive of and enabling of speech and has virtually nothing to do with the history of censorship. The American communications industry turns to Congress to protect them against unfair foreign competition and to ensure foreign markets. The American public turns to Congress to provide a fair and open system in which there is opportunity, to the extent possible, for all to speak and, with luck, to be heard.

This does not mean that anything Congress does is free of constitutional doubt, and I would like to turn, briefly, to a few comments on the relationship between Congress and the Supreme Court. One risk of the First Amendment as new trump card, as the comprehensive definer of policy, is that jurisdiction and power over the architecture of the infrastructure shifts to the Supreme Court. One can look back at the history of radio and television regulation prior to the mid-1970's virtually in vain for a decision in which the Constitution was used to overturn Congressional legislation on first amendment grounds. Even now, almost all the cases which are cited and decided as limits on the power of the Congress to engage in the architecture of a democratic infrastructure involve state and not federal legislative action. The role of the Supreme Court with respect to these state and local decisions is different from the relationship of the Court to Congress.[3]

The Court must worry about the problems of a proliferation of different and varied regulatory approaches to communication, without the limiting federal frame-

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[2] Cass Sunstein, Democracy and the Problem of Free Speech (New York: The Free Press 1993).

[3] In *Linmark Associates Inc.* v. *Willingboro*, 431 U.S. 85 (1977), the Court struck town a local ordinance that banned for sale signs even though the township interest was in promoting a stable integrated neighborhood. A Congressional statute seeking the same objective would have had a far greater chance of being upheld.

work, and it therefore applies a different standard to decisions of entities that are not coordinate branches under our constitutional system. In a sense, the Court and Congress are faced with the same difficult problems of line-drawing; if one thinks of a variety of areas where the Court has struck down some and sustained other interventions by state and local governments in the structuring of opportunities for discourse, the outcome, the patchwork of resulting opportunities, often appears to look as much like the intricate distinctions of federal law as like principled constitutionalism.

More recently, the First Amendment has become, in the hands of the Court, a more predominant determinant of federal policy and the current dispute over must-carry rules is an example. Of course, the particular approach Congress must take, at any given time, does have to dovetail with current Supreme Court jurisprudence. Styles of legislation are thus informed by prevailing doctrine. The Court's ongoing debate over the test to be applied in addressing the constitutionality of legislation that affects communications systems will and should control the structure of legislation. The idea of strict scrutiny of content-based regulation and the definition of what constitutes content-based regulation is before the Court at this very moment, with a decision expected daily in *Turner Broadcasting*.

The last half century, and more, can be read as a long exercise in determining what the shape of federal regulation of the ever new telecommunications technology should be. That exercise-which includes the Communications Act of 1934 through the 1992 Cable Act, has been informed by a sense of democratic values inherent in what I have referred to earlier as the technologies of freedom, using the extraordinary phrase of Ithiel de Sola Pool. What was characteristic of this half century has been that it was largely Congress and the Commission, not the Supreme Court, that took the leadership in fashioning communications policy. That is the way it should be and the NPTIA is an example of such initiative.

The legislative history of radio provides insight into an early idea of the familiar Congressional concern with the infrastructure of discourse. Time and again, radio was conceived not as a mere medium of entertainment, not even as a linear extension of the newspaper, but something wholly new, a mechanical way to improve the nature of American democracy. The language of the public sphere early entered into the notion of public airwaves and public trust. In 1924, Herbert Hoover, then Secretary of Commerce, testifying before a Congressional committee, encapsulated this view:

> [I]t cannot be thought that any single person or groups shall ever have the right to determine what communication may be made to the American people * * * I am stating [this] as a general principle which must be dealt with as an assurance of public interest for all time. * * * Radio communication is not to be considered as merely a business carried on for private gain. It is a public concern impressed with the public trust and to be considered primarily from the standpoint of public interest to the same extent and upon the basis of the same general principles as our other public utilities.[4]

This oft-quoted paragraph has within it the idea of universal service, nondiscriminatory rates, evenness of access. The very idea of a utility is to assure fair distribution of an important asset as an element of a democratic society. The scarce commodity is not just spectrum, and the Act contemplates that ultimately even that may not be scarce but, rather, information and culture. To have said, as Hoover did, that radio is "a public concern impressed with the public trust" is to perceive the need for the public sphere. Congressman Johnson, stated what were, even then, general fears:

> There is no agency so fraught with possibilities for service of good or evil to the American people as the radio. * * * The power of the press will not be comparable to that of broadcasting stations when the industry is fully developed. * * * [I]t will only be a few years before these broadcasting stations, if operated by chain stations, will simultaneously * * * bring messages to the fireside of nearly every home in America. They can mold and crystallize sentiment as no agency in the past has been able to do. If the strong arm of the law does not prevent monopoly ownership and make discrimination by such stations illegal, American thought and politics will be largely at the mercy of those who operate these stations.[5]

Here, too, are harbingers of concern with the public sphere. Not only in terms of its anti-monopoly statement, but in the way in which radio is differentiated from "the press" in terms of its impact on the political system. These were astute politi-

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[4] See, Second Interim Report by the Office of Network Study, FCC Docket No. 12782, p. 114 (1965).

[5] 67 Cong. Rec. 5558 (1926).

cians; they could recognize, even at this early stage, that the nature of political debate could be altered without conscious impact on the social organization and management of radio. In the 1926 debates concerning the 1927 Radio Act, Congressman White stated:

> [T]he right of all our people to enjoy this means of communication can be preserved only by * * * the doctrine that the right of the public to service is superior to the right of any individual to use the ether * * * The recent radio conference * * * recognized that * * * licenses should be issued only to those stations whose operation would render a benefit to the public * * * If enacted into law, the broadcasting privilege will not be a right of selfishness. It will rest upon an assurance of public interest to be served.[6]

These are the roots for the NPTIA. These were the words of Members of Congress at the dawn of another communications technology. New communications technologies, massive and expensive, have always depended on government subsidy, favorable regulation, special privileges and, often, protection from competition. There was nothing inherent in the airwaves or the inert wire or the optical fiber that dictated the social organization that accompanied it as the service is delivered. Physics controls what occurs in the wire. Law and social organization determines what occurs before and after. These elements of organization are open to public definition and legislation without "abridging freedom of speech."

It is also important that the Congress is acting dose to the moment of creation, rather than at some later point in the evolution of the technology. In the construction of the national television system, the reservation of channels for educational and noncommercial purposes was almost too late as the pattern of occupying frequencies, manufacturing sets and establishing viewing habits almost instantly came into place. If anything, the difficulties faced by public broadcasters in overcoming their UHF handicap, obtaining detente tuning, gaining a national structure through the Corporation for Public Broadcasting and the Public Broadcasting Service-all of these demonstrate the need for early planning.[7]

If anything, the change in emphasis in thinking about the relationship between access, equity and freedom in the communications media provides Congress with the kind of responsibility fulfilled by the NPTIA. Structural access—the kind included in the proposed legislation—is preferable to regulation that has a closer relationship to content. The Supreme Court has indicated that it would welcome a time "at some future date" when "Congress * * * may devise some kind of limited right of access that is both practicable and desirable * * *"[8] It was the hope of the Court that the coming of new technologies would aid in this process and that Congress would take advantage of that opportunity.

Some think of the common carrier model as the perfect mechanism for a free market society dedicated to unencumbered speech and access to modes of distribution of that speech. Multichannel-channel common carrier systems, the deus ex machina of the new technology, seem, but only seem, to avoid the need for government involvement. But common carriers do not guarantee equal access. It is only as a general common carrier model is modified, combined with features that seek to assure access (such as the Public Telecommunications Infrastructure Fund, free carriage for identified public entities and similar methods), that the benefits of the common carrier model become fully harmonious with a democratic society.

The legislation as drafted is an example of the evolved debate over the role of Congress in making distinctions that are not unconstitutionally content-related, establishing the conditions for the use of public resources and rights of way. The legislation must deal with two bodies of law: those concerned with regulation, property and rights of way, and those concerned with the First Amendment.

First, the findings are important; they underscore the goals that have been so elusive, but that have consistently interested Congress. They repeat the sustained role that public broadcasting has played in the national strategy for the enrichment of the citizenry. They emphasize the interrelationship among the institutions of democratic life: libraries, local governments, schools, cultural and related charitable institutions and the reliance of all of them on improved opportunities for communication. These findings articulate the potential for dangerous bottlenecks that would impede the use of the new media for enhanced access. They also expressly note the key pub-

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[6] 67 Cong. Rec. 5479 (1926).

[7] For a discussion of the need for early Congressional intervention with respect to cable, see Price, Requiem for the Wired Nation: Cable Rulemaking at the FCC, 61 Virginia L. Rev. 541 (1975).

[8] *Federal Communications Commission* v. *Midwest Video Co. et al.*, 440 U.S. 689, 704; 99 S. Ct 1435, 1443-44 (1979).

lic privilege that makes all of these networks possible: access to publicly owned spectrum and rights of way on public property.

Second, the bill is artfully drawn to weave its way through the obstacle course concerning content-neutrality distinctions in any regulatory pattern. When *Turner Broadcasting System, Inc.* v. *FCC* is decided by the United States Supreme Court, it is possible that the options before the Congress to achieve its legitimate purposes will be dearer.[9] The NPTIA is drafted to withstand constitutional objections that would arise from requiring "speakers" to carry certain kinds of speech and not others (so-called content-based distinctions). Here the statute is sensitive to objections raised in the three judge court in *Turner* and by Judge Jackson, sitting alone, in *Daniels Cablevision* v. *United States,* 835 F. Supp. 1; Nos. 92-2292 et al., 1993 U.S. Dist. LEXIS 12806 (D.D.C. Sept. 16, 1993).

The shoals here include those that distinguish between commercial and noncommercial speech, shoals that the Supreme Court Justices have had difficulty navigating themselves. Just last week in *City of Ladue et al.* v. *Gilleo,* 1994 U.S. Lexis 4448; 62 U.S.L.W. 4477 (1994), Justice Stevens, who had been a principal proponent of eliding the distinction between commercial and noncommercial speech, struck down a local ordinance that permitted "for sale" signs on residential premises but precluded signs with overt political messages.

Justice Stevens considered the site where the prohibited speech took place (at the appellant's home) and the personal nature of the expression the vital element. For Justice Stevens, the significance of the protected form of expression was that it was an "unusually cheap and convenient form of communication * * * especially for persons of modest means or limited mobility." *Ladue,* 1994 Lexis 4448. It was intriguing that Justice Stevens focused more on the operation of speech and discourse in society and the importance of opportunities for individual expression. If anything, Congress should consider itself challenged and empowered by the Court's approach in *Ladue.* The National Public Telecommunications Infrastructure Act creates an electronic equivalent of the house in *Ladue* and the capacity of citizens to hang a sign out for their neighbors: the goal here, too, is to create opportunities—close to the home—"unusually cheap and convenient" and "for persons of limited means and mobility."

Still, the complexity of legal doctrine is fearsome concerning any distinctions that can be construed to have a content basis. In *Cincinnati* v. *Discovery Network,* 1135. Ct. 1505, 123 L. Ed. 2d 99 (1993), the Supreme Court invalidated Cincinnati's schedule of ordinances which permitted thousands of newsracks for "newspapers" but prohibited these local devices for predominantly commercial publications. Judge Thomas Penfield Jackson, in*Daniels Cablevision,* upheld federal authorization of required cable channels for public, education and government channels because "affording speakers with lesser market appeal access to the nation's most pervasive video distribution technology [and] [e]nabling a broad range of speakers to reach a television audience that otherwise would never hear them is an appropriate goal and legitimate exercise of federal legislative power." I would argue that the provisions of the NPIA meet this standard. In this sense, in the convoluted language of content-neutrality, they seem to serve a regulatory goal unrelated to content, a goal that represents a compelling government interest, and they do not burden substantially more speech than necessary to serve these interests.[10]

The concern-necessary at this point because of the uncertainty of Supreme Court doctrine on content neutrality-accounts for the careful two step process in the legislation: 1) providing, in exchange for the expanded use of a public right of way, for the reservation of capacity for public uses that would not be under any further control of the owner or operator of that capacity; and 2) providing, then, under regulations promulgated by the Commission, for the allocation of use of the channels to eligible entities, with such allocation under the aegis of state and local governmental entities. This is a kind of belt and suspenders approach and, as I have mentioned, the announcement of *Turner* may mean that one or another of the guarantees may not be constitutionally required (though the elegance of the solution may still be desirable).

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[9] It is my view, expressed in a recent law review article, Rewiring the First Amendment: Meaning, Content and Public Broadcasting, 12 Cardozo Arts and Entertainment law Journal, 499 (with Donald Hawthorne), that those distinctions drawn in the statute—providing reserved space for public broadcasting, educational and other civic entities—is probably constitutional, even as a process to be administered by the operator of the telecommunications network.

[10] Because, in a switched or supercharged system, channels will be abundant, it is possible to argue that the speech of others will not be burdened at all. Of course, the argument from that kind of abundance might suggest that this legislation is not necessary. But the nature of the system, as I state below, is sufficiently in doubt, that the protection of the legislative mantle, at this point, is warranted.

There is a rich body of law that deals with the extent to which governments can regulate users of public rights of way. I know that the Committee wishes to know more about this area, but it is not a major area of my expertise. A law professor at Boalt Hall, at the University of California, recently wrote of the case law in the area that "it is difficult to imagine a body of case law in greater doctrinal and conceptual disarray."[11] The issue of the power of government is, however, clearer where a) the objects of regulation are users of existing utility rights of way and b) additional benefits or uses of those rights of way are to be exploited or there is a regulatory need to change the nature of those rights of way. I know that various participants in this process will provide detailed analyses of the legal issues.[12]

The second step in the two-pronged approach of the NPTIA—an approach to avoid the hazards of imposing a content-based distinction on private uses—is the government's administration of the now-public and reserved channel capacity. Here, the legislation moves from the constitutional rubric of Discovery Network to a more familiar area of operation: the allocation of resources by the government and the making of legitimate and rational distinctions in doing so. The importance of adding "instructional, educational, and cultural" voices to the public sphere was recognized by Congress as a basis for creating the Corporation for Public Broadcasting and its discretion as a mechanism for funding public broadcasting. The Supreme Court has upheld federal rules that preferred designated category applicants for reserved spectrum capacity precisely because of the impact diverse ownership would have on democratic discourse.[13] The Court has upheld allocational preferences where the recipients were free to accept or reject conditions that have content-related distinctions. *Rust* v. *Sullivan,* 500 U.S. 173 (1991). These issues have arisen, as well, in cases testing the grant giving of processes of such government entities as the National Endowment for the Arts.[14] Discretion in the government is greater where, as here, the concerned entity (as, for example, the telecommunications network) is not "forced either to appear to agree with," disagree, "or to respond." *Pacific Gas & Electric Co.* v. *Public Utilities Commission,* 475 U.S. 1, 155 (1986). Finally, a preference for the kind of educational and civic programming is best classified as subject-matter rather than viewpoint based in its nature. Even without the reservation approach in the NPTA, some cases suggest that subject-matter distinctions should be accorded a lower level of scrutiny than viewpoint-based distinctions. See, e.g., *Lehman* v. *City of Shaker Heights,* 418 U.S. 298 (1974).

The proposed National Public Telecommunications Infrastructure Act shows a sensitivity to the fact, constitutionally important, that no one, not the cyberpunks, not the hackers, not the investment bankers, not the jurists, know exactly what the National Telecommunications Infrastructure will look like. As a consequence, some flexibility is necessary in determining how the National Public Telecommunications Infrastructure should be designed. Uncertainty could produce an inability to proceed and should not produce public paralysis. Allowing the infrastructure to develop with no indication of any Congressional determination as to the kind of access that would be required may lead to constitutional problems in the future. This legislation has the boldness of acting, but the flexibility of delegation. Furthermore, the legislation anticipates the possibility that—at some wonderful future date—capacity will be so great and bottlenecks so few that access provides no problem. In that case, the Commission, for those systems where such curative abundance is characteristic, has the power to suspend any access requirements.

Furthermore, the statute is as finely tailored as possible, given the uncertainty of the situation; undoubtedly, more sculpting will take place in light of the outcome

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[11] Andrea L. Peterson, "The Takings Clause: In Search of Underlying Principles Part I-A Critique of Current Takings Clause Doctrine," 77 Calif. L. Rev. 1301, 1303 (1989).

[12] In *American Satellite Co.* v. *United States,* 26 Cl. Ct. 146, 1992, rev'd on other grounds, Fed. Cir. July 7, 1993, the Administrator of NASA altered the contractual right of private parties to use the transport facilities of space satellites after a Presidential proclamation changing the nature of potential uses. In *Presault* v. *United States,* 27 Fed. Cl. 69 (1992), the federal claims court upheld the power of Congress to alter the nature of a railroad right of way to permit trails, not rails, and to secure the right of way from abandonment. What is at issue here is the power of the federal government and the nature of the holder's justifiable expectation. In *FCC* v. *Beach Communications Inc.,* 113 S. Ct. 2096 (1993), the Supreme Court upheld jurisdiction over SMATV systems even if they did not cross public rights of way. Acknowledged as almost an a fortiori argument would be the susceptibility of such entities to altered expectations if they, in fact, used a public easement. As to the question of the adequacy of compensation, that poses less of an obstacle than one might expect. Given the nature of the system, it is hardly clear that the injury or value surrendered is considerable. Congressional action here may, indeed, make these telecommunication network systems more comprehensively available, more necessary and the objects of greater demand.

[13] *Metro Broadcasting* v. *FCC,* 497 U.S. 547 (1990).

[14] *Advocates for the Arts* v. *Thompson,* 532 F.2d 792 (1st Cir. 1976).

of *Turner*. Recognizing the possibility for various outcomes that might affect the goals of the legislation, the Act provides for future transition measures. The Commission is permitted to reduce or eliminate the reservation of capacity, a "windowshade" that can descend on the legislation if the abundance of available channels makes the allocable space for public communications unnecessary.

The entities entitled to the allocation of reserved space under the Act are the very sort that have been traditionally been mandated to carry on government's historic responsibility, in the broadest sense, to educate the citizenry. As the court recognized on an historic occasion, "education is perhaps the most important function of state and local governments," with its importance recognized by "compulsory school attendance laws and the great expenditures for education."[15] The historic centrality of education to government's mission and the democratic enterprise suggests that the Congress acts constitutionally when it organizes the reservation of capacity in these public rights of way for such educational and speech supporting activities. As Cass Sunstein has recently written:

> Sometimes constitutional doctrine seems to have lost sight of the point of central constitutional commitments. Sometimes the commitment to free speech seems like an abstraction insufficiently * * * connected with democratic goals, or indeed with any clearly describable set of governing aspirations.[16]

The NPTIA is connected with democratic goals and meets the other tests of the Supreme Court. It is constitutional.

Senator INOUYE. Professor Price, thank you very much. I would like to begin with you, sir. Is it your view that we will be able to withstand any challenge based upon the first and fifth amendment?

Dr. PRICE. Yes. Let me speak to the first amendment question. I think that this act differs very substantially from the 1992 Cable Act. The 1992 Cable Act placed obligations directly on cable operators. This act is more like spectrum allocation provisions, in which there is a reservation of capacity which is then allocated by the FCC, and I think that is an ingenious way of avoiding the first amendment obstacles that may or may not exist in the 1992 Cable Act.

Senator INOUYE. Thank you very much, sir.

As I think all of us have concluded, the major thrust in the opposition movement would be to the 20 percent set-aside. I would like to ask questions to all of you.

First, would you consider the 20 percent to be an appropriate number? Admittedly, we must say that there is nonscientific basis on the part of the subcommittee to come forth with a 20-percent number. Second, those who question this have suggested that the percentage is so high that it would slow down or in fact delay the construction of the information superhighway. Third, it would be too heavy a burden for ratepayers to pick up. Fourth, they suggest that it should be subsidized by tax revenues accordingly. I would like to have your thoughts on this.

Mr. CAUTHEN. Well, Senator, the structure as we see it in the bill makes provision for the FCC to control the amount of resources that are made available based on experience after we find out what the capability of the system is. If we do not need 20 percent, they can back off of that, but 20 percent at least in my estimation is a benchmark. A statement saying we must set aside a significant part of this highway for the public good, and as far as slowing down the development of the highway, I do not think the highway should be developed that excludes the kind of needs that we are

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[15] *Brown* v. *Board of Education*, 347 U.S. 483, 493 (1954).

[16] Cass Sunstein, Words, Conduct, Caste, 60 U. Chi. L. Rev. 795, 797 (1993).

proposing to serve today. I do not believe it would stop it. It might slow it slightly, but it will not stop it.

Mr. RIDDLE. I would like to mention that I come from a cable system in which, depending upon which part of the system you are talking about, we have between 15 and 20 percent of the bandwidth allocated for public use, and it is only recently that the cable operator has started having enough program resources to be able to fill adequately the channel capacity that he has.

As far as slowing down the system, I do not think it would slow the system down, because if indeed there is such a great need for the bandwidth, I think it would actually encourage technology to be developed which would expand the capabilities of the system.

I think this is absolutely essential for the public sector that we not find ourselves content with a level of bandwidth that is available now, but that the industry be encouraged to expand the bandwidth so that these questions of how much should be assigned to the public use will eventually hopefully become irrelevant based on such capacity.

Senator INOUYE. President Connick.

Dr. CONNICK. Senator, we see three basic issues in Maine. One is the lack of capacity today for nonpublic or for public uses, second is the cost of obtaining capacity, and the third is really who is going to provide the content to go over the pipes that are built.

If the projections are correct that the capacity is going to increase in revolutionary terms, it would be our belief that the 20 percent will not be a major burden as these major networks are built, and therefore one of those problems, if not both, will be addressed as these mammoth networks are put in place. So, we do not see it as an undue burden.

Senator INOUYE. Thank you. Mr. Blau.

Mr. BLAU. In terms of whether the 20 percent is appropriate, I think it is quite in line with previous efforts by communications policymakers to set aside or make accommodations for noncommercial and educational uses. Whether or not it is the perfect number, I know that it is certainly in line with the kind of set-asides that were created for FM radio and the original allocation of the spectrum for VHF and UHF stations back in 1952.

Moreover, I think it raises a fundamental question what kind of communications environment do we want? When we get to the question, does this slow down something, well, what are we rushing into? We are being told we are rushing into a system with a great cornucopia of public benefits. If actually making sure we get those benefits slows us down, well maybe we ought to take a look at the trade that we are being asked to make. But, I do not think in fact it will slow it down.

Companies have made similar kinds of promises. As I understand the legislation it simply creates a mechanism that makes sure we get what we are being told we are going to get.

Senator INOUYE. Thank you, professor.

One of the reasons we used 20 percent was our concern for the fifth amendment. Obviously, if we went up to 80 percent it would be a fifth amendment taking. Would 20 percent be in the safe area?

Dr. PRICE. Well, I think that the question of what is confiscatory is an element in this issue of what constitutes a fifth amendment

problem. The basic point here is that there is a kind of quid pro quo that goes on in the negotiation over the use of public rights-of-way.

I think that a court looking at this would look at the proportionality, would look at the question of whether or not this is an undue or out-of-line kind of relationship to other negotiations over the use of public rights-of-way, and then look additionally at the source of congressional power, and at the findings in the legislation.

It seems to me pretty clear, looking at the history of the way in which public rights-of-way are negotiated and used, the 20 percent is probably not out of line.

Senator INOUYE. Coming back to the 20 percent issue once again. This is one question that has plagued us and we have no answer, and so we look to you for answers, or to other technicians. It is easy to determine 20 percent of a 100-channel cable network. How do we determine 20 percent of a digital network?

Dr. PRICE. I just want to say a word in addition to what I said in the last answer, and maybe it will lead to this, and that is that this is not a legislation that in a fixed way sets aside 20 percent.

I think it is important that 20 percent is a presumption not a rule. I think it is important that the FCC has the authority and jurisdiction to consider the way in which that ought to be implemented and the way in which capacity is administered by the telecommunications networks. I think the fact that this is a presumption also goes to the question of what "20 percent" mean?

The NII is, as I think we all see, an animal that is not yet capable of being described, so it is like saying what is 20 percent of something which is not yet fixed in nature. That is something that will require a continuing dialog and discussion between this committee, the Commission, and the industry.

There are a number of factors, including capacity, including pricing, including the way in which the use interconnects with the network, all of which will go to the definition of what constitutes capacity and what 20 percent evolves into, but I think what is important about the legislation definitionally and constitutionally is that it has flexibility.

The legislation sees as a role for the FCC the management of a "window shade" so that when capacity develops into a full digital network with an open architecture, the FCC has the authority and some direction to say that this kind of reservation no longer is necessary.

Senator INOUYE. I think you gave us your answer. Thank you. Does anyone disagree with that?

[No response.]

Senator INOUYE. Others have argued that many States—in fact, all States—have some degree of set-aside requirements. South Carolina started about 35 years ago. The State of Hawaii, in its infancy, has one that has been operating pretty well. Maine has a system that the university originated.

Because of this, they say it is not necessary. Any arguments?

Mr. CAUTHEN. Senator, speaking on behalf of South Carolina, which probably, at least at this moment, needs it the least of any State, looking down in the future, we know the needs are going to be so great. And this is an area where—I mean it is fine to compete

in football to be on the top of the rank, but we should not be competing on making the access to educational resources available on a competition basis for those who can afford it and those who cannot.

Right now, one of the great problems in education today is that those who need it most cannot afford it. So, South Carolina, through the wisdom of some good legislative leadership down through the years, have built a system, at some expense. But if you look around the country and see how many there are, they are not there. Uniformity in the use of available resources is not there.

And unless this sort of legislation is put in place, we are going to have a lot of communities, a lot of schools and a lot of States that are going to be well behind others. And I doubt that any will be able to fully reach the necessary resources that they could use to benefit the public.

If we are going to reach the Goal 2000, it is going to take some dramatic moves. This is the kind of move that can bring America to the forefront and make us not only equal to the rest of the industrialized world, but can let us lead the industrialized world. And if we turn our backs on this opportunity, we will have put our education system and our population behind for generations to come.

This, I think, is the most critical decision that this Congress may make in a long, long time.

Senator INOUYE. Dr. Connick.

Dr. CONNICK. Senator, we think we are really at the first-generation phase of the development of telecommunications for the use of the public sector. Telemediated instruction, we think, over the next 5 years, will change in revolutionary ways. We will really begin the basic restructuring of schools, as well as higher education, as a result of capacities which we have never had before.

So, it is very difficult to project how that is going to come out. But people have simply not had the access to these enormously powerful tools. And we have concentrated primarily, up to this point in time, at looking at the pipe—you know, what is the size of that pipe going to be that people have access to?

We have not concentrated at what is going to happen on either end of that pipe. And as the pipe becomes available, there are going to really be revolutionary changes. This kind of legislation is critical for that kind of movement. And I think there is going to be an explosion of change in education as a result of this. It is very important.

Senator INOUYE. Mr. Blau.

Mr. BLAU. Yes, sir. It seems to me that as we have seen in cable and I think will be seen more in the telephone model as well, there is some tension to be acknowledged between Federal regulation and State regulation with the coming of new technology. But I think it is very important that Federal policymakers create certain kinds of benchmarks—some basic standards that we should all be meeting.

In particular, if you look at the nonprofit sector, 40 percent of nonprofits provide service in very local areas. But 43 percent provide service in multicounty, State or even regional areas. What we need to do is to make sure that they have a certain kind of parity

across their region. We need a level playing field across the States to assure some sort of basic level of these public benefits.

So, I think that having those Federal parameters will be very helpful.

Senator INOUYE. Mr. Riddle.

Mr. RIDDLE. I would have to agree with Mr. Blau. It seems like most of the Federal legislation, both Markey's H.R. 3636 and Hollings' S. 1822, have in mind trying to eliminate some of the patchwork quality of the communications system. And so, to the degree that that would help private business, it would also help the public sector.

So, we really need the strength of the Federal Government to be able to protect the public interest so that we do not have to sort of fight these battles on a State-by-State or county-by-county level.

Senator INOUYE. I have other questions I would like to ask, but I will now recognize Senator Burns.

Senator BURNS. Thank you, Mr. Chairman.

I have just now started to go through this legislation and look at it. And I would ask unanimous consent that my statement be entered into the record.

Senator INOUYE. Without objection.

[The prepared statement of Senator Burns follows:]

PREPARED STATEMENT OF SENATOR BURNS

Mr. Chairman. While I think everyone in this room agrees on the need to have a National Information Infrastructure with affordable access for all Americans, it seems there is a fundamental lack of understanding about how such a network will become a reality.

There is no such thing as a free lunch. But this legislation takes the free lunch one step further and says the entity making the free lunch has to pay people to eat it.

The reserved capacity requirements for telecommunications networks in this bill are so burdensome that it will create a disincentive for telecommunications networks investment necessary to expand network capacity.

As a result of giving away 20 percent of their network capacity, network providers will be obliged to raise prices for the services provided over the remaining 80 percent of the network in order to make a fair return on their investment.

The result will be higher prices for consumers taking services that they want and a major reduction in the future capacity of our nation's telecommunications network.

For the groups here today to gain what they really need, a broadband interactive telecommunications network with unlimited capacity, this bill will have the reverse consequence. If enacted it will lead to the construction of a limited network which will preclude access for the groups gathered here today in support of this legislation.

Even with a 20 percent set-aside for these public groups, a network with limited capacity will keep most public groups locked out of the information age. It is with a broadband interactive telecommunications network that all public groups will gain affordable and in many cases public and private funded access to the National Information Infrastructure. In my opinion, this legislation will not help this nation achieve this important goal.

Senator BURNS. Obviously, we have everybody here in support of this legislation and no one that is speaking up that has any concerns with it.

Senator INOUYE. If the Senator will yield. We invited the networks. We invited the FCC. We invited the administration. But due to circumstances beyond their control, so I have been advised, they were not able to be here. But we have invited them to submit written statements.

Senator BURNS. Well, I would hope so as we go down this road.

I have no questions for this group here. I have listened very intently to their testimony this morning.

Mr. Cauthen, you made the statement that things in education—we do not want to get into a situation, I would agree with you completely—we do not want to get into this business of the haves and the have-nots.

We have great things happening in Montana right now without this law. We are using distance learning as well as anybody around because we have great distances in Montana. There is a lot of dirt between light bulbs.

We have also got some people out there that, if this law was in place, I would rather doubt that we would be doing what we are doing now, especially with our rural telephones who operate outside of the regulatory regime. As you well know in your own State that co-ops operate outside that, that serve the rural areas.

I would rather doubt that we would have two or three or four pods of rural schools who are sharing resources both in teaching and also in the ability to attract money through grants or equipment and also the time that it takes on two-way interact. We have got one new one going up this year. There will be five schools. Four schools are already in place and have been used now for a couple of years.

When those systems were set up, the schools thought they would probably use them 2 hours a day. They are now being used over 6. Miles City Community College, Dawson Community College, and the high school in Sidney, MT, hooked together on their nursing programs over there. Where the class is taught in Miles City, those distances are each 100 miles apart.

Now, for people in career changes, they are taking courses at night from both of those community colleges for career changes—single mothers—without driving the 100 miles to go to school or 200 miles roundtrip.

Those things are happening right now. If they are not happening in your State, then it is not because the vehicle is not there or the money or the mindset is not there. Sometimes you have to go to the school board. Sometimes you have to change some funds in order to make this work.

So, I would agree with you that we do not want to get into a situation of the haves and the have-nots. But with money constraints and taxes and everything else, there has to be some incentive to build a broadband system.

And with incentives is, I guess—if the Mickey Mouse dollar forces the technology to the world areas so that other things like education, like telemedicine, like all of these things that we are going to do with this marvelous technology of compressed digital technology traveling on this highway of glass, then we are going to have to put some incentive out there other than using great numbers of tax dollars from this 13-square-mile marvelous area of logic free environment. That is what I am saying. I am saying that we have to give an incentive to build it. But with any disincentive it will not happen.

And when you compare that we want to get like the rest of the world, there are some things happening in this country where we

are light years ahead of the rest of the world in that technology—light years. And I do not want to see that slow down.

We have got a great engine going right now. But I would agree with you—we do not want to get into a situation where there are the haves and the have-nots. We must make it available to libraries, to medical facilities, but especially to schools and libraries. I am very, very supportive of that. And there are ways to do that.

So, I have not dug into this legislation really. This is my first exposure to it in the last couple of days. And I look forward to looking at your written testimony. I appreciate all of you coming today in support of this legislation, because I think it deserves to be looked at it. But I think we better take a thorough look, and not just at one side of it.

Mr. CAUTHEN. Well, Senator, I appreciate what you say there. I totally agree with you that we are light years ahead of the rest of the world in the development of this technology. My only concern is to be sure that the groups that you named have access to it.

And as I look around the country, while we have had access to the kind of technology South Carolina is using, it is not happening in most States. And somehow we have to make it easy enough for all States to be able to have access on an equal basis.

Senator BURNS. That boils down to leadership. I believe in this. I believe in this technology. And I believe in what it has to offer the American society. And the chairman understands that.

I have been interested in this ever since the first day I walked into Washington, DC. Because I think that this technology and this particular part of our national infrastructure is absolutely cornerstone to the empowerment of people. This is people empowerment, especially for our disabled.

My goodness, what it does for a person with disabilities. It takes those disabilities completely out of the equation of being able to participate in the American dream and in the American society.

So, you do not have to sell me on what this has to offer. It is how we go about serving the most people. And sometimes we do things that are disincentives, that does not allow it to happen. And I am not saying that this is one of them, but, as I hear the testimony here this morning, I am a little concerned about it.

I thank you.

Mr. Riddle, did you have a comment? I see you just steaming over there.

Mr. RIDDLE. I cannot help it. I think, Senator Burns, you speak eloquently in favor of the public interest—also as it is expressed in this bill. And, our counsel, having looked at the bill, notes that one of the best aspects of the bill is the flexibility that it gives for the FCC and different areas. Your area has certainly different factors that drive the process than my area, and yet we have to build systems for all of these. And I think this bill really speaks to the ability to have a system set up in different ways according to local conditions.

Senator BURNS. I think that is true. And we are involved in a project now—we are just in the embryo stage, so to speak, of gluing together our Native American reservations. And I think two-way interact is very important not only so that they receive all the benefits of education and certain new ways of helping themselves in

the economic areas, but I think they have a great thing on two-way interact.

That is the reason I pushed broadband very hard. Because I think their culture has something to offer our culture, the overall American culture. I think that is where two-way interact is key. It is key that you and I can interact. Because if we cannot, if it is just one-way, then we have only completed one-half of that cycle.

But when we do that, that means new technologies and new ways of doing things. So, we must give the private sector an incentive to do it. Just do not give them a disincentive not to do it to set in the regulatory basket, so to speak, and feel very comfortable, and not feel compelled that they have to do it, that they have to go into society. That is what I am saying. And that is a narrow line, and you and I could sit down and we could talk for a long time.

By the way, you come from Minneapolis; that is a great town. We in Montana, if we die and are fortunate enough to go to heaven, we are going to have to change planes in Minneapolis. [Laughter.]

Mr. CAUTHEN. Senator, I am sure it would be of interest to you that South Carolina, working with Head Start, has a program to train day care workers. And it reaches out to migrant worker camps, to Indian reservations, to Alaskan villages, to inner city situations. It started with 8 States; it is now in 28 States. And it is live and interactive. You are absolutely correct, the interactive nature of it is essential.

We had a funny thing that happened on it. It included the day care workers and we insisted that the parents be part of it. All of a sudden we saw that some of the parents were disappearing and we got very worried. What we found out, however, was that they were finding jobs in day care centers, because they had learned enough through this process.

Senator BURNS. That is true. And there are some exciting things that happen. That is why I say that this piece that fits into the infrastructure is very important. It is people empowering. It is the greatest empowerment tool that we have, especially the two-way interact. And it is true, we are seeing career changes.

We are seeing, in distance learning, students become participating students, where before they were nonparticipating—not because of the content of the program, because the technology stimulates the curiosity and they become participants.

I guess I am a pretty easy sell on this thing, but I have been traveling all over my State of Montana selling school boards, and now, at Montana State University, a telecommunications center that will offer—of course you know land grant schools and the extension service—and they already have a built-in apparatus in every State. We do not have to create another one. It is already there. All we have to do is just sell them on the idea that this is the right thing to do.

But I would agree with you wholeheartedly, there is a fine line between serving the haves and the have-nots. And I think, with a little bit of really good old Yankee salesmanship, we can take care of that. We can take care of that.

Dr. PRICE. Senator, if I could just say one word that goes to the constitutionality. I think Senator Burns has made a really exceed-

ingly good case for what I think this bill really is, which is the infrastructure of education and citizenship. The point is, how does the public sector—government, whether it is the Federal Government or State government—working with land grant colleges, working with schools, develop an infrastructure for citizenship.

In that sense, this bill is not exactly about the first amendment, the fifth amendment, incentives, or disincentives. It is about how the industry and Government work together with institutions that have already been established, like the land grant colleges, for an infrastructure for citizenship.

Senator BURNS. Well, I thank you, Mr. Chairman. I did not mean to hog the time here and get off on this sermon business.

Senator INOUYE. After listening to you, would you like to cosponsor the bill?

Senator BURNS. I am not ready to do that yet. [Laughter.]

Senator INOUYE. I would like to make it very clear that this measure is intended to benefit all Americans. Therefore, we specifically mention in the bill tribal governments, for example. As all of us are aware, most Americans live in congested metropolitan areas. And some have suggested that it would not be cost effective and therefore that it may not be in the public interest to deploy advanced interactive networks into distance rural areas.

Do you agree with that?

Dr. CONNICK. As I understand the statistic, 40 percent of Americans live on essentially 90 percent of the land. And to go back to Senator Burns' point, it is true that some States have taken real leadership in the development of telecommunications networks for distance education and other purposes, but part of the attractiveness of this bill is that it addresses what are multistate issues.

For example, it is virtually impossible for us to cooperate with New Hampshire and Vermont, which have very similar kinds of needs to Maine, because of the existing regulations. And we cannot work effectively with NYNEX because of those.

Many of these issues are going to have to be addressed as this legislation unfolds. We are going to have to look at how we are going to share curriculum and share resources, but on a much broader scale than simply individual school districts working with a neighbor. We are going to work across State lines and across the Nation.

So, this legislation is very important in looking at networks which span regions and large sections of the country.

Mr. CAUTHEN. Senator, in the STAR Schools program in which we deliver live interactive instruction in foreign language, math and other important programs, there are a number of schools that may have only one or two students that are taking, say, Russian or Japanese or calculus. Those schools would never be able to offer that kind of resource.

We had a young boy from Mississippi who came to testify on the STAR Schools legislation a couple of years ago. He said because of that he got into college, and it was the first foreign language that he and his five classmates had had in the last 8 years. And I think that is the kind of thing that we are talking about. There are sim-

ply not enough teachers, no matter how much money we have, to do this through the same conventional means of education.

Technology is the only way we are going to bring about the needed changes in education to make the needed resources available to every child in every school, no matter where they are located. And it cannot be done on a patchwork basis. It has to be some universal availability. And that can only happen through legislation such as this. Because one State may, yes, make some dramatic advances here and there, but there are going to be lots of States that will simply, for a long, long time to come, never come to the line and make the necessary adjustments.

Mr. BLAU. Sir, if I may follow on to Mr. Cauthen's statement. It seems that in fact the telecommunications technologies that we are talking about allow us to overcome distance, as Senator Burns was talking about. And, specifically, for smaller and rural communities, that means the delivery of economic benefits as well as educational benefits, and the stability of small-town America.

I would hate to penalize people because of their geography, because of where they happen to have been born. If we do not in fact specifically attend to rural areas, there is no reason to believe that we will not in fact widen the gap between rural and urban areas. So, I think that the rural areas that you talk about are in fact the very areas that need specific policy attention.

Senator INOUYE. Yes, Mr. Riddle.

Mr. RIDDLE. I would just like to point out that if we build a society where all the valuable services are located only in the cities, then we will just further encourage this trend for people to move both from reservations and from small family farms into the cities and create further congestion.

Also, it does not value me to be the only person with a telephone. You know, there is a need for universal access because even if I can afford access myself, it does me no good if I cannot reach who I need to reach, who might be on the farm.

And just to be a little more esoteric, we talk about the need for this country to stay on top of things—I think we need to really tap the collective unconsciousness of all of our people. And being connected to the system is going to be very important whether you are within the city or whether you are in the rural areas.

So, to that extent, I think the future of this country is going to be based on us being able to make use of all of our citizens' energies.

Senator INOUYE. Finally, I would like to ask all of you this question. Four weeks ago, the Hon. Richard Riley, the Secretary of Education, testified before this committee in support of S. 1822, the Communications Act of 1994. In his testimony I believe he set forth the administration's position. I would like to read this and ask whether you agree or disagree:

> The principle of "free," public education for all children is the bedrock of our democracy. Not cheap, inexpensive, or available for a fee but in its very essence "free." We believe in this basic American principle because we know its long-term value for society as a whole.
>
> * * * * * * *
>
> Educational institutions large and small—schools, libraries, literacy centers, early childhood centers, community colleges, and universities—should have access and

usage of these services. If we can't connect the NII with all educational institutions at once, then schools, libraries, and literacy centers should be at the top of the list of public institutions that are rapidly linked to the information highway.

Do you agree, Mr. Blau?

Mr. BLAU. I absolutely agree. I could not say it any better. I cannot add anything to the sentiments that Mr. Riley expressed here. All I can say is that I fully agree and I think those kinds of bedrock principles need to guide policymaking in the communications area.

Senator INOUYE. Dr. Connick, you cited that yourself.

Dr. CONNICK. Yes, I clearly agree. I think he is absolutely correct.

Senator INOUYE. Mr. Cauthen.

Mr. CAUTHEN. Senator, I would not dare disagree with the former Governor of South Carolina. [Laughter.]

Senator INOUYE. It looks like it is a South Carolina day.

Mr. Riddle.

Mr. RIDDLE. I do not think the people on either side of the issue would dare disagree with that.

Senator INOUYE. Dr. Price.

Dr. PRICE. I think, again, it underscores the constitutionality of the legislation—that it is concerned with the problem of distribution of education—and that is an important concern and always has been of the Congress.

Senator INOUYE. Gentlemen, I thank you very, very much for your testimony. To the public, this may have seemed one sided, but the record will show that we did invite all views to be expressed at this hearing.

We will hold other hearings, if necessary, to receive testimony from the networks, the telephone companies, commercial organizations, the FCC, and the administration.

With that, once again, thank you very much.

[Whereupon, at 11:15 a.m., the hearing was adjourned.]

APPENDIX

PREPARED STATEMENT OF SENATOR PRESSLER

Mr. Chairman, thank you for holding today's hearing on S. 2195, the National Public Telecommunications Infrastructure Act of 1994. I support efforts to ensure that the benefits of new technologies are shared by all Americans. At the same time, I believe public interest obligations on telecommunications providers must be carefully crafted. We must be careful not to chill investment. New technologies promise to provide more distribution channels for information, higher capacity two-way communications, and a host of new services. In my view, stimulating investment in new technologies is the best way to serve many of our public policy objectives. I look forward to hearing from today's witnesses.

LETTER FROM TIM FINNERTY, CHAIR, LEGISLATIVE/PUBLIC POLICY COMMITTEE, MINNESOTA ASSOCIATION OF CABLE TELEVISION ADMINISTRATORS

JUNE 21, 1994.

The Honorable DANIEL K. INOUYE,
U.S. Senate,
Washington, DC 20510

DEAR MR. CHAIRMAN: **I am writing to you regarding S. 2195, a bill which directs the Federal Communications Commission to require the reservation, for public uses, of capacity on telecommunications networks, and for other purposes.**

The Minnesota Association of Cable Television Administrators is a membership-based, nonprofit organization consisting of 150 Minnesota municipalities engaged in cable television franchise administration. We welcome the development of a fully competitive, robust telecommunications marketplace. It is critical, however, that legislation to advance this worthwhile goal not create this marketplace by giving private commercial interests unfettered access to, and control over, local public rights-of-way and other public property.

We believe that the reservation of public and educational institutions, including local governments of the right to utilize a portion of multichannel video programming capacity for community information outside the providers editorial control is critical to the public interest. Federal law should require multichannell video programming providers, regardless of the means of distribution, to meet public, educational, and governmental access obligations.

While our organization has not yet had the opportunity to take formal action on your proposal, we commend you on your efforts to assure a space on the "information superhighway" for noncommercial interests.

Sincerely,

TIM FINNERTY,
Chair, Legislative/Public Policy Committee.

LETTER FROM SUSAN S. LITTLEFIELD, PRESIDENT, NATIONAL ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS

JUNE 21, 1994.

The Honorable DANIEL K. INOUYE,
U.S. Senate,
Washington, DC 20510

DEAR SENATOR INOUYE: The National Association of Telecommunications Officers and Advisors (NATOA) strongly endorses the policies and goals you seek to achieve

through introduction of S. 2195, the National Public Telecommunications Infrastructure Act of 1994.

As you may know, NATOA represents local government regulators and administrators of telecommunications systems (including cable franchises) which utilize the public rights of way. NATOA's membership is responsible for protecting the interests of more than 5 million cable subscribers around the nation; members also manage communications systems, program government access channels, and advocate for the public interest in the proceedings of Congress, the Federal Communications Commission, and our states and local communities.

Although we are still reviewing the exact language of S. 2195 as introduced, we strongly support your intent to reserve capacity on advanced telecommunications networks for public and noncommercial use, and provide necessary funding that would make such use a reality. Both goals are critical if the promise of the "information superhighway" is to be realized for all citizens, not just the privileged few. Local governments are uniquely equipped to identify the needs and interests of their communities through local mechanisms, and we look forward to sharing the responsibility of redistributing and targeting the capacity to be set aside by S. 2195. We also understand that the bill as introduced will preserve the important principle of compensation for use of the rights of way and other public property, and will preserve existing franchise arrangements.

We would be happy to provide further testimony and information, and we pledge our commitment to work with you and the committee as the bill is further considered.

We applaud your continuing commitment to the public interest in telecommunications.

Respectfully,

SUSAN S. LITTLEFIELD,
President.

PREPARED STATEMENT OF THE NATIONAL SCHOOL BOARDS ASSOCIATION

The National School Boards Association speaks on behalf of public education nationwide and represents 95,000 school board members who endeavor daily to provide an excellent public education to every child in the country. School board members are the elected and appointed local officials responsible for governing more than 15,350 local community public school districts for over 41 million schoolchildren. School board members are elected by parents, business people and other taxpayers in communities across the nation. As local community members themselves, they are the essential bridge between the community and its public schools. They work with the community to develop and set into action policies aimed at giving our nation's schoolchildren the best opportunity to succeed in an increasingly complex world.

NSBA and school board members recognize that an integral part of preparing our public schoolchildren to succeed lies with the effective use of technology in the classroom. NSBA has been a leader in advancing the wise use of technology in public education through its Institute for the Transfer of Technology to Education (ITTE). Launched in 1985, ITTE and its Technology Leadership Network represent the lighthouse school districts engaged in cutting edge work in the area of technology. Publications, site visits to exemplary schools and enhanced communication between school leaders and the technology industry are among its products and services. ITTE also hosts an annual conference attracting over 2,000 school board members, educators, federal and state policymakers and industry representatives who come together to explore technological advances that foster learning.

THE EDUCATION INFORMATION SUPERHIGHWAY

One of the most critical functions of the Information Superhighway will be to open new doors or educational opportunity in our nation's schools. The Clinton Administration is proposing that every classroom be provided with two-way voice, data and video communication by the year 2000. NSBA supports this goal asks that Congress establish a concrete framework in policy to make it a reality. Every classroom in the country must have meaningful, affordable access to the information superhighway. Policymakers must ensure that the superhighway is, above all, a place of learning.

NSBA urges Congress to take decisive action in many areas including:

1. Ensuring that all classrooms are connected to a two-way voice, data and video network at no cost.

2. Ensuring that traditionally underserved areas, such as rural and poor school districts, are made a high priority.
3. Requiring that ongoing access is highly affordable.
4. Stimulating research into new educational programming.
5. Providing funding for teacher training in the wise and creative use of the information superhighway.
6. Setting aside a public space on the superhighway that will include uses by schools.

PUBLIC SPACE ON THE SUPERHIGHWAY

While the broadest vision of the information superhighway is one of infinite lanes and "unlimited" capacity, it is clear that this is likely to be the adult phase of this process. In its infancy, however, capacity and access will be more limited. With education as a priority in superhighway development, a significant portion of capacity must be reserved for public and educational use. Free or highly affordable access to that "public space" must be guaranteed to educational institutions.

EDUCATION SUPERHIGHWAY IN ACTION

The following describes several ongoing pilot projects that have brought various components of an information superhighway to schools. Such pilot projects show clearly how school districts are using telecommunications to open new worlds for students, teachers, and communities:

• A "Virtual School"—Academy VS–BBS (Virtual School Bulletin Board System), a school made of modems and microchips by 8 school districts in west Texas, was a single-line bulletin board created eight years ago at a cost of $5,000. Today, this 15-line regional learning environment stays open 24 hours a day, 365 days a year and is reached by thousands of students using modem-equipped computers and telephone lines.

Students dial the Academy free of charge to read and write E-mail messages, exchange information through on-line forums, search data bases of information, and acquire free software. They also read on-line tutorials and lessons, take tests to gauge their skills, ask questions, tutor peers, and plan collaborative projects.

• Community Telecomputing—Florida's Indian River County School District is the site for the nation's first comprehensive "community telecomputing" system open to all citizens and institutions. Known as IRIS (Indian River Information System), it serves three groups: learners, communities and small businesses.

The most important goal of IRIS is to strengthen the home-school connection, which many consider the best predictor of school success. The program showcases how community telecomputing can expedite home-school communication, expand school hours, and let families design and implement a home curriculum.

• Fiber Link—Using fiber-optic cable between schools and video monitors in each classroom, Arizona's Glendale Union High School District can transmit instructional television and announcements to all the teachers and students in the district. The fiber-optic network, which connects the district's nine schools and district office, is linked to an instructional television (ITV) classroom at each of the schools and to video monitors.

Each ITV room is equipped with simple-to-operate podiums which gives teachers and students control over four television monitors. The system offers several advanced placement classes which do not enroll enough students at any single school to warrant hiring a teacher.

• Project Homeroom—A partnership of six Chicago-area school districts and several local business are investigating how telephone and computer technologies can extend the school day and enhance the learning process.

Students, parents, teachers, and administrators get round-the-dock access to national news services, on-line encyclopedias, science and financial statistics, and their own school libraries. And from their home computers, students can access their personal work files stored on school computers or turn in their homework assignments to their teacher's computers.

• Across the State—Vision Carolina lets students in 16 North Carolina school districts take part electronically in classes that are miles away. Biology students in Charlotte, for example, can observe an operation under way at Duke University Medial Center in Durham without traveling to the university or getting in the doctor's way.

The program features two separate fiber-optic networks linking high schools, community colleges, universities and the medical center. One network is centered in Charlotte and encompasses 12 sites; the other is based in Wilmington and includes five sites.

• Current Events Connection—In Project LA-Konnect (Louisiana Kids Organizing Network News Electronic Communications Teams), fourth, fifth, sixth and 12th grade students and their teachers played the parts of world leaders at a "global event" in spring 1992, culminating a year of preparation and research conducted via classroom television monitors, computer, modems and fax machines.

By emphasizing the use of a wide array of resources—including the vast data bases available from on-line services—it taught students the research skills they need to become lifelong learners in today's rapidly changing world.

• Texas On-Line—Linking more than 1,200 students and teachers in grades two through 12 to public officials and business executives, the TEXAS project (Teachers Electronically Excited and Sharing) has enabled groups of students to choose a local business or organization and investigate its economic impact in their community.

Each class writes an essay on the selected entity, uploads the essay on the electronic network, and shares it with a partner school for discussion. Essays are often forwarded to the community organizations.

CONCLUSION

As Congress crafts legislation that will both launch and govern the information superhighway for years to come, education must be a central concern that is carefully examined and articulated in the legislation. Lawmakers have an historic opportunity to ensure that all of our nation's school children have access to the information superhighway—as both creators and receivers of the bounty that will be available. The National School Boards Association looks forward to working with the members of the Senate Communications Subcommittee of the Commerce, Science and Transportation Committee on the development of this critical legislation.

PREPARED STATEMENT OF PEOPLE FOR THE AMERICAN WAY ACTION FUND AND MEDIA ACCESS PROJECT

People for the American Way Action Fund (PFAWAF) and Media Access Project (MAP) submit this testimony in enthusiastic support of S. 2195, the "National Telecommunications Infrastructure Act of 1994," introduced by Senator Daniel K. Inouye. MAP and PFAWAF commend Senator Inouye for his courageous efforts in guaranteeing that advanced telecommunications networks which promise to be the nation's main link to the future are deployed to ensure that the goals of the First Amendment in communications media are realized.

The much-touted information superhighway has the potential to give rise to a new era of democratic self-governance by providing the means through which civic discourse, education and artistic expression can flourish. However, until the introduction of S. 2195, no pending legislation sought to address an important truth: without careful planning and encouragement, the emerging National Information Infrastructure (NII) risks becoming little more than a forum for expanded business data transmission, home shopping and movies on demand. The National Public Telecommunications Infrastructure Act of 1994 seeks to prevent this by creating a framework under which the greatest diversity of voices and ideas have access to the communications mechanisms of the future. As the Supreme Court recently stated in *Turner Broadcasting* v. *FCC*, "assuring that the public has access to a multiplicity of information sources is a governmental purpose of the highest order, for it promotes the values central to the First Amendment."[1]

Without the capacity reservation provided for under S. 2195, local governmental institutions, libraries, schools, public broadcasters and other nonprofit organizations will be unable to determine how they can best take advantage of new telecommunications technologies. Instead, their fate will be determined by private gatekeepers who have no economic incentives to permit those institutions without the means to pay commercial rates access to their networks. These institutions will encompass many of the main contributors to and facilitators of a diversity of programming on the NII. We applaud Senator Inouye for his effort and thank the Committee for the opportunity to submit this testimony.

S. 2195 WILL HELP REINVIGORATE DEMOCRATIC PARTICIPATION AND FIRST AMENDMENT VALUES

The information superhighway holds breathtaking opportunities for reviving American democracy and for promoting the values embodied in the First Amendment. S. 2195 would ensure that the NII is properly designed and deployed with

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[1] *Turner Broadcasting* v. *FCC*, Docket No. 93-44 (Decided June 27, 1994) at 40.

the ability to give citizens the capacity both to send and receive text, video, voice, graphic and other multimedia services. While providing valuable applications in education, health care and library services, the new media could also revitalize civic discourse on political, cultural, artistic and other matters and stimulate greater citizen involvement in issues of community concern.

The new telecommunications networks have the potential to re-create the "public square" of the past. With legislation that facilitates both commercial and non-commercial uses of the technology, citizens will be able carry on electronic dialogues with elected officials and gather together in cyberspace versions of New England town meetings to deliberate. A diverse array of Americans will be newly empowered, as they use computerized interactive links to question candidates, download government data and "network" with other citizens around the country. Citizens will no longer be viewed merely as recipients of information. Rather, government will be able to facilitate the creation of networks of information exchange, allowing citizens to be producers as well as consumers. The notion of America as a true participatory democracy with citizen access to diverse information and ideas will be enhanced.

Around the country, many forward-thinking state, local and private non-profit institutions are already developing ways to enhance government services and participation through the use of new technologies. For instance, in several communities around the country, electronic kiosks are being used to facilitate the implementation of important government benefits.[2] These electronic "centers" permit citizens to ask questions and receive information, as well as file applications. In addition, several non-profit organizations are establishing electronic fora in which individuals can engage in important discussions about issues that affect both their local communities and the world. For example, in California, the Center for Governmental Studies has begun a multi-year project to design and build interactive multimedia public interest applications for communications systems of the future.[3] The first phase of this is a "Democracy Network" which will permit individuals to have access to video statements of candidates and participate in discussions on local, national, and international issues.[4]

The information superhighway also holds great promise for the revitalization of education, healthcare and cultural expression. As new communications technologies are implemented, the opportunities will be enumerable. Children and others will be educated at virtual campuses regardless of geographic location and will be able to engage in important cross-cultural discussions. Doctors will provide healthcare services to elderly and homebound citizens simply by sitting at their computers. Artists will find new and important modes of presentation and reach millions of citizens every day, engendering increased appreciation and involvement in cultural expression.

Private industries see the next generation of video chiefly as a medium for pay-per-view movies, home shopping and other entertainment-based purposes. They do not envision the super-highway as means of reviving democracy and encouraging free and diverse speech. Without the mandated public obligations of S. 2195, the information superhighway will not be designed to advance those objectives and they may never be realized.

S. 2195 WILL PREVENT PRIVATE MEDIA GATEKEEPERS FROM CONTROLLING WHAT WE SEE AND HEAR AND HOW WE THINK

Like the Internet, which was created with government subsidization and now exists without the intervention of private media gatekeepers, the information superhighway cannot act as a facilitator of democratic participation, education and cultural diversity without the government's early encouragement and support. Although industry representatives continually make promises of the contributions they intend to make to noncommercial uses of their new technology, the history of communications policy teaches us that these promises will never come to fruition without government intervention. The private sector's blue-sky visions will invariably be overridden by economic forces that have little interest in serving less profitable markets. Although they may be recognized as important, education, civic participation, localism, the arts, the humanities and myriad other nonprofit functions will not be financially attractive to businesses, especially while all we have is a limited channel system. In addition, while industry representatives continually promise to hook up every school and library in this country, not everyone has taken the time

[2] In Tulare County, California, Tulare Touch consists of touch-screen kiosks that help low-income welfare recipients apply for benefits. These services are available in several languages and have been able to reduce delay and errors in benefit allocation.

[3] See, Appendix A describing project sponsored by The Center for Governmental Studies.

[4] Id.

to ask what this really means. What good will it be to be "hooked-up" for free if schools and libraries cannot afford the monthly usages fees? Further, what good will it be to have been connected for free, if those institutions lack the necessary equipment and training to use the system to which they are connected?

S. 2196 IS ALSO MODELLED ON GOVERNMENT ENCOURAGEMENT OF COMMUNICATIONS MEDIA IN THE 20TH CENTURY

Throughout American history, government has encouraged and facilitated the means of communication, education and civic discourse. There has long been a government recognition of the rights of individuals to both receive and send information. Since the earliest days of our nation, Congress guided the development of post roads, the construction of railroads and highways and the formation of land grant colleges. This was accomplished through governmental recognition that every citizen in this country must given the tools with which to communicate, educate and be educated, and engage in public discourse. Further, our national systems of telephone, radio and television broadcast services were developed precisely because of the important role played by Congress in ensuring that the nation's communications media serve public debate and involvement. As the Supreme Court recently said, "[i]t has long been a basic tenet of national communications policy that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public."[5]

Congress has also recognized the importance of the non-commercial and public sectors in encouraging the existence of diverse noncommercial speech over all of our communications mechanisms. Since 1934, designated portions of the radio spectrum have been reserved for non-commercial and educational purposes. And, since the early age of television, the federal government has designated certain television channels for noncommercial programming. In fact, Congress established the Corporation for Public Broadcasting in 1967 in order to ensure that the radio and television spectrum reserved for noncommercial programming was utilized effectively, and that those committed to providing noncommercial programming had the means to reach their goals. And, the Cable Communications Act of 1984 provided for the establishment of access mechanisms for the provision of public, educational and governmental programming on cable television systems.

Similarly, the National Public Telecommunications Infrastructure Act recognizes that as new and innovative communications mechanisms are developed, it is the responsibility of the government to ensure that they are developed so that the past efforts of ensuring access and participation by the public are not undermined by market forces. Space must be set aside for noncommercial uses to encourage and support educational, informational, civic and cultural services if the promises of the information superhighway to reinvigorate democratic and cultivate a diversity of voices are to be realized.

S. 2195 IS NARROWLY TAILORED TO EFFECTUATE IMPORTANT GOVERNMENT INTERESTS

The Public Telecommunications Infrastructure Act was carefully drafted to effectuate the critical goals of ensuring public access and encouraging the flow of a diversity of ideas. The bill recognizes that the expectations of the NII are that capacity will eventually be unlimited, making it easy for all comers to have access. Therefore, S. 2195 provides for capacity reservation only until this ubiquitous world is reached. The bill permits the Federal Communications Commission to determine that networks with sufficiently open architecture, capacity and non-discriminatory access terms should not be required to reserve capacity. As such, S. 2195 is care-fully constructed to impose flexible regulations in a world of rapidly changing technology.

The transitional and flexible nature of the legislation makes it constitutionally sound both on First and Fifth Amendment grounds. While we do not include a fall constitutional analysis here, we believe that it is important to comment on two recent Supreme Court cases that many critics of the legislation claim call its constitutionality into question.

We believe that the Public Telecommunications Infrastructure Act promotes values that are central to the First Amendment. In *Turner Broadcasting* v. *FCC*, the Supreme Court addressed the question of whether the commercial and noncommercial must-carry rules of the Cable Television and Consumer Protection and Competition Act of 1992 ("Cable Act") violate the First Amendment rights of cable operators. The Court for the first time defined the First Amendment framework to apply to regulation of the cable industry, and by inference, to new electronic technologies. The 5-4 decision did not conclusively rule on the cable industry's challenge; but in

[5] *Turner*, at 40 (citations omitted).

ordering the lower court to hold new hearings on the sufficiency of the government's record, the decision reaffirmed the substantial nature of Congress' interest in ensuring diverse cable programming. The Court outlined a constitutional scheme which strengthens the rationale for the public right-of-way bill. The court specifically stated that "assuring that the public has access to a multiplicity of information sources is a governmental purpose of the highest order, for it promotes values central to the First Amendment."

Analyzing the Cable Act, the Court held that the must-carry rules are content neutral and therefore subject to less scrutiny than would be applied to analogous government regulation of a newspaper. The Court applied the "intermediate scrutiny" test it had articulated in *United States* v. *O'Brien*, 391 U.S. 367, which requires that content neutral regulations be sufficiently tailored to serve important governmental interests. The public right-of-way proposal embodied in S. 2195 would meet the test established in Turner. S. 2195 does not favor particular speech on the emerging information infrastructure. Like the must-carry rules, it is not designed "to favor or disadvantage any particular content."[6] Instead, the legislation seeks to ensure that all speakers are given the same opportunity to participate in the new communications media and that the builders of the information superhighway do not exclude entire groups of potential speakers because of financial and other business-related limitations.

The set-aside of capacity for noncommercial use in S. 2195 would in no way mandate particular programming decisions, thereby undermining the content neutral nature of the legislation. The *Turner* Court stated that in the "must-carry" context, it was permissible to choose certain classes of speakers, when the criteria used do not themselves turn on the viewpoint or content of their speech. The Court noted that the law creating public broadcasting, for example, does not use government's "financial support to gain leverage over programming decisions."[7] Similarly, the public right-of-way bill does not seek to replace individual programming decisions with the will of government. It seeks only to create a general requirement that noncommercial speakers be permitted to participate on the NII and to encourage the greatest diversity of programming and voices.

In distinguishing between newspapers' freedom from regulation and the power to impose neutral regulation on cable systems, the *Turner* Court embraced yet another powerful rationale for the public right-of-way legislation, namely the degree of control that the cable industry has over access to its audience:

> the physical connection between the television set and the cable network gives the cable operator bottleneck, or gatekeeper, control over most (if not all) of the television programing that is channeled into the subscriber's home. Hence, simply by virtue of its ownership of the essential pathway for cable speech, a cable operator can prevent its subscribers from obtaining access to programming it chooses to exclude. A cable operator, unlike speakers in other media, can thus silence the voice of competing speakers with a mere flick of a switch.[8]

Similarly, for the transitional period during which S. 2195 will operate, owners and operators of telecommunications networks will completely control access to important new communication mechanisms among citizens and between citizens and government. As technology converges, telecommunications carriers, like the cable operators of today, will occupy an increasingly pervasive presence as the gatekeepers to critical information and services. When that is no longer the case, and telecommunications networks exist virtually without boundaries, the public right-of way bill contemplates that its requirements will be extinguished. For the time being, however, as in *Turner*, the potential for abuse of power by these emerging industry gatekeepers is real, and "[t]he First Amendment's command that government not impede the freedom of speech does not disable the government from taking steps to ensure that private interests not restrict, through physical control of a critical pathway of communication, the free flow of information and ideas."[9]

We believe that the Public Telecommunications Infrastructure Act would also withstand a challenge based on "takings" law. The argument has been raised most recently in the context of the Supreme Court's decision in *Dolan* v. *City of Tigard*.[10] There, the Court held that the government may not require a person to give up a portion of her property in exchange for a discretionary benefit from the government where the property sought by the government has little or no relationship to the benefit. The *Dolan* case applies to situations where the government conditions the

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[6] *Turner*, at 21.
[7] *Turner*, at 26.
[8] *Turner*, at 32.
[9] *Turner*, at 33.
[10] *Dolan* v. *City of Tigard*, Docket No. 93-518 (Decided June 24, 1994).

use or development of private property. However, the proposed legislation imposes a Congressionally mandated condition on the private use of public property. S. 2195 would mandate that in exchange for the right to use pub lic rights-of-way for the provision of advanced telecommunications services, telecommunications carriers set aside a portion of the capacity on those rights-of-way for use by the public. Indeed, the legislative language of S. 2195 makes this clear: the capacity to be used by eligible entities is to be treated as public property for which telecommunications carriers will have no legal responsibility. As articulated above, such regulations are an important part the history of our telecommunications system.

Further, even assuming that the capacity to be reserved under S. 2195 is private property, the legislation clearly satisfies the standards set forth by the Supreme Court. The Supreme Court has established, time and again, that the government may require the surrender of certain properly in exchange for valuable government benefits. It is not the case that the government is attempting merely to change the terms of already existing relationships between telecommunications providers and governmental authorities. Here, telecommunications carriers are being given the right to use public rightsf-way to lay their cable or string their wires in order that they may provide enhanced telecommunications services. Instead, S. 2195 addresses the "information superhighway" of the future.

In analyzing the regulations in *Dolan*, the Supreme Court held that in order for there to be no unconstitutional taking an "essential nexus" must be identifiable between a legitimate state interest and the condition being imposed on the use of property. The Court also held that the conditions imposed bear a "reasonable relationship" to the projected impact of the proposed development of the property. There is clearly an "essential nexus" between the conditions to be imposed by S. 2195 and the government interest in ensuring all Americans access to a diversity of voices through the facilitation of dissemination of noncommercial, governmental, educational, informational, cultural, civic an charitable services. Clearly, the reservation of capacity is a mechanism that promotes this interest. In addition, the reservation of capacity is reasonably related to the interests the legislation promotes—in this case, ensuring access to a diversity of information providers. The extensive findings in S. 2195 illustrate that the reservation of capacity is not only reasonably related, but also the "least restrictive means" to ensure such access.[11]

WITHOUT S. 2195 THE INFORMATION SUPERHIGHWAY WILL DEVELOP IN A PIECEMEAL FASHION AND HINDER RATHER THAN PROMOTE DEMOCRACY

Proponents of rapid deployment of the information superhighway make much of its potential to create a national communications system which can establish critical links between and among citizens and public official, elected and appointed. Built into the notion of enhanced democratic participation is the presumption that the NII will truly be a national system. S. 2195 helps to ensure that this will be so.

Recognzing the important role state, local and tribal governments must play in guiding the development of the NII, S. 2195 also helps effectuate the important federal interest of national deployment. The bill strikes an important balance between the interests of state and local authorities in communications system deployment on a community-by-community basis and ensuring that advanced telecommunications services are available for noncommercial uses consistently regardless of geographic location.

Without the reservation of capacity, promises of a national communications infrastructure with the ability to unite all citizens will become elusive. Instead, we will have a fragmented communications system under which certain state and local authorities will ensure access by local governmental bodies, schools, libraries and other non-commercial entities, while others will not provide for this critical access. Therefore, the ability of citizens to engage in national political dialogues coast-to-coast, of school children in isolated areas like Hawaii to learn about inner-city problems by participating in seminars with inner-city kids, and of citizens in Alaska, for example, to obtain information from the Library of Congress will be hampered not by technological limitations but by the lack of uniformity of access to the NII.

The provisions of S. 2195 would also ensure that public access requirements are uniform across emerging technologies. Existing provisions of the Communications Act apply only to particular technologies or services. As a result, requirements, if any, for ensuring noncommercial access to various telecommunications systems vary from technology to technology. S. 2195 would not only ensure that the NII develops

[11] As in the *Turner* case, the holding in *Dolan* sends a clear message that Congressional findings as well as a clear supporting record are critical for documenting the relationship between the conditions to be imposed by the legislation and the state interest to be furthered.

into truly a national infrastructure, but also that the same standards are applied to various industry participants.

APPENDIX A

THE CENTER FOR GOVERNMENTAL STUDIES' THE DEMOCRACY NETWORK—AN ON-LINE, INTERACTIVE, MULTIMEDIA, POLITICAL COMMUNICATION PROTOTYPE

INTRODUCTION

The Center for Governmental Studies has initiated a multi-year project to design, build and install interactive, multimedia, public interest software and applications for the digitized communications systems of the future. These applications win enable low-income and other users, from their homes and other locations, to obtain free or reduced cost information on health, education, employment, government and political empowerment, as well as participate in interactive "video bulletin and issue boards."

The first phase of this project—"The Democracy Network"—is a voting information and political participation component which will be completed by late 1995. The second phase of the project—"Connect California"—is a low-income, interactive, multimedia, broadband "test bed" in South Central Los Angeles. It win distribute health, education, employment and political information and should be initiated by 1996. The third phase of the project—"Connect America"—is the integration of the first two phases into interactive multimedia systems across the country by 1998 and beyond.

SUMMARY

The Democracy Network is an interactive multimedia program which will be installed in broadband digital test beds and enhanced computer networks by late 1994 and 1995. It win allow users, in their homes or other locations, to review full-motion video statements of candidates for elected office; participate in the discussion of local, national and international issues; log on to video bulletin boards and discuss public policy issues with others; and obtain text, graphic, voice and video information on the activities of federal, state and local government and participating courts.

A fully functioning prototype of The Democracy Network will be available for demonstration purposes by June 1994 on an Apple Quadra 840AV computer with a one gigabit hard disk drive and a Radius Video Card.

The project has been funded by the Mary Reynolds Babcock Foundation of Winston-Salem, North Carolina, the Carnegie Corporation of New York, the Nathan Cummings Foundation of New York, the Wallace Alexander Gerbode Foundation of San Francisco, and the James Irvine Foundation of San Francisco.

The Democracy Network has been created with the assistance of AND Interactive Communications, a pioneering multimedia production company. The Electronic Frontier Foundation, the Center for Politics and Policy of the Claremont Graduate School and several telecommunications companies have provided advice as well.

DESCRIPTION OF THE DEMOCRACY NETWORK

The Democracy Network is an electronic, interactive, multimedia system of political participation, civic empowerment and voter information. It will include:

- *Voting Information*—Viewers will be able to access, in a multimedia format, full-motion video statements by political candidates, candidate press conferences, endorsements, TV ads, issue statements, opponent rebuttals, newspaper stories, TV newscasts and campaign contributions. It will allow users to interact with each other and candidates over key campaign issues. It will include an "electronic sample ballot" for potential future electronic voting.
- *Issue Information*—Viewers will be able to "click" their way through a range of video, textual and graphic information on current political, economic, social and public issues (e.g., multimedia discussions by experts on "gun control," "immigration," "the economy," "employment," "abortion," "Bosnia," "South Africa," "education," "welfare reform," etc.).
- *Town Hall Discussion*—Viewers will be able to participate in on-line multimedia bulletin boards, leaving video, audio or textual messages for political candidates or other users, receiving responses to their questions, and viewing others' questions and answers.
- *Government Information*—Viewers will be able to access information placed in the system by government agencies and departments, including video, audio or textual descriptions of agency services and video coverage of governmental proceedings.

• *Court Information*—Viewers will be able to watch oral arguments before participating appellate courts (California's Supreme Court, for example, allows video coverage of its oral arguments).

After focus group and other user evaluations, The Democracy Network will be placed in working cable and telephone company test beds for further refinement. Bell Atlantic (for Alexandria and Northern Virginia), PacTel (for Milpitas, California), Time Warner (for Orlando, Florida) and Viacom (for Castro Valley, California) have expressed interest in including The Democracy Network in their broadband testbeds. The Democracy Network will also be available to coaxial cable computer networks (e.g., such as that planned by Microsoft/TCI).

AN ILLUSTRATIVE SCENARIO

The Democracy Network will offer this scenario:

A voter will be offered an opening menu on his or her TV/computer screen. Choices would include "1994 Election," "Current Issues," "Town Hall Meeting," "Government" and "Courts";

A "click" on "1994 election" will display choices: Governor, U.S. Senator, Congressman, state legislators, judges, city council, ballot measures, etc. A "click" on "Governor" will further display:

Opening video statements by all candidates;

Video statements on up to 10 specific issues by each candidate;

Rebuttals from candidates on those issues;

Videotaped endorsements from up to 5 individuals or organizations selected by the candidates;

All the candidates' TV, radio and print commercials, with easy access to newspaper "truth boxes" commenting on the accuracy of those commercials;

Videotapes of candidate press conferences;

Excerpts from television newscasts covering the candidates;

On-line access to print materials (newspaper and magazine stories, editorials, research on election issues) on the campaigns;

Campaign contribution data listing the top five contributors;

Biographical information on candidates-education, voting records, achievements;

Electronic bulletin beards for voters to communicate with each other and express their comments; and

Access to "Project Vote Smart" and other organizations with candidate information.

A voice activation feature (built into the remote control unit) will allow users to speak a candidate's name ("Governor Wilson") and an issue ("crime") and have that candidate's statement on crime instantly appear;

A simultaneous translation feature will allow users to obtain voiceovers of candidate statements in Spanish, Chinese or other languages.

BENEFITS OF THE DEMOCRACY NETWORK

The Democracy Network will begin to create the most advanced political communications system yet devised. It will allow voters to cast more informed ballots and communicate with each other on political issues; increase voter participation, especially among poor, young and new voters; mitigate the political campaign costs of paid media; provide easy-to-use multi-lingual political materials to non-English speaking audiences; and develop and suggest policies (equal time, reasonable access, fair use of copyrighted materials, etc.) to encourage full utilization of this technology.

The Democracy Network will also help diminish existing financial disparities between candidates, since voters will be able to view the candidates' materials based on interest, not the candidate's financial strength. Because the system will be largely self-operating, candidates will prepare their own materials (as they have done for the initial prototype) and download them into pre-prepared "windows" in local servers. Users will access those windows, review the candidates' materials and even leave their own comments.

The system will be simple to use and will require no experience other than the ability to use a hand-held remote. The software can be upgraded yearly and can be easily adapted to fit other platforms (e.g., cable or telephone company delivered video, broadband computer networks or CD-ROMs).

The project will demonstrate the desirability of allowing all Americans to participate in their political system without cost. It may encourage policy makers to incorporate the new system into the evolving definition of "service" and thus make it available free to candidates and voters.

THE CENTER FOR GOVERNMENTAL STUDIES

The Center for Governmental Studies, a Los Angeles-based, private, nonprofit organization which works to improve the processes of media and democratic governance, is a pioneer in new media and governance. The Center built "The California Channel," the nation's first "state C-SPAN," a satellite-fed, public affairs television network now available to 4 million homes. The Center has also published seven major books on media and political reform, organized three statewide commissions and stimulated the introduction or adoption of over two dozen political reform laws.

NCTA COMMENTS ON S. 2195

S. 2195 would require private telecommunication companies to allocate up to 20 percent of their network capacity to public entities, such as state and local governments, universities, advocacy groups, and other non-profit institutions. NCTA agrees that the objective of the bill—to ensure widespread access to the information superhighway—is commendable. However, in practical terms, S. 2195 is unnecessary, will produce adverse effects, and is unconstitutional.

S. 2195 is unnecessary, for at least two reasons:

1. The objectives set out in S. 2195 are, in many ways, being addressed today through other, less-intrusive measures. Under current law, for example cable operators must:

- dedicate channels for public, educational, and governmental ("PEG") use;
- provide free carriage to local public broadcasters; and
- set aside additional capacity for commercial leased access.

In addition, current telecommunications bills pending in Congress mandate the following:

- reduced rates for public institutions that use telecommunications networks, and
- other targeted provisions to help educational and health care institutions gain access to telecommunications networks.

2. There is no evidence that the groups favored by S. 2195 require free access to telecommunications services. Targeted measures, such as those in pending legislation, are more effective means to providing access. S. 2195 extends privileges to a broad number of groups, many of whom are substantial users of existing telecommunications networks (including the broadcast spectrum). Many of these groups also have ready access to the funds they would need to purchase capacity on telecommunications networks. If some groups do not have sufficient funds for such purposes, explicit public sector subsidies are much more efficient than broad mandates on private companies.

S. 2195 is unconstitutional. S. 2195 would appear to violate both the First and Fifth Amendment rights of cable operators and other telecommunications providers.

1. Fifth Amendment Violation—Unconstitutional Taking. S. 2195 seems to violate the Fifth Amendment's requirement that the Federal government provide compensation when it takes private property for a public use. The fact that telecommunications networks use public rights-of-way does not eliminate this requirement, for at least two reasons:

- Network facilities are wholly owned by private companies; and
- The government already has been compensated for the use of such rights-of-way in the form of franchise fees, PEG, must-carry and leased-access channel set-asides, universal service obligations, common carrier duties, and other unique public interest obligations imposed upon network providers.

This problem would be aggravated if network owners were required to contribute revenues to an economic support fund for eligible entities. In effect, the bill requires network providers to surrender both a portion of their capital plant and a portion of their annual revenues.

2. First Amendment Violation. S. 2195 provides free use of communications networks to certain groups that use the capacity "only for the provision of educational, informational, cultural, civic, or charitable services." Thus, privileged access would depend upon a speaker's membership in particular groups favored by the government, as well as the content of the group's message. Consequently:

- Speech by a group is favored over speech by an individual.
- Speech that seeks to educate or inform is favored over speech that seeks to entertain or advertise.

The First Amendment does not permit the government to use such distinctions as the basis for granting or denying privileged access to communication media.

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Document No. 194

LIFTING PUHCA RESTRICTIONS

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON
ENERGY AND POWER

AND THE

SUBCOMMITTEE ON
TELECOMMUNICATIONS AND FINANCE

OF THE

COMMITTEE ON
ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

JULY 29, 1994

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LIFTING PUHCA RESTRICTIONS

FRIDAY, JULY 29, 1994

HOUSE OF REPRESENTATIVES, COMMITTEE ON ENERGY AND COMMERCE, SUBCOMMITTEE ON ENERGY AND POWER, AND SUBCOMMITTEE ON TELECOMMUNICATIONS AND FINANCE

Washington, DC.

The subcommittee met, pursuant to notice, at 10:13 a.m., in room 2123, Rayburn House Office Building, Hon. Edward J. Markey (Chairman of the Subcommittee on Telecommunications and Finance) and Hon. Philip R. Sharp (Chairman of the Subcommittee on Energy and Power) presiding.

Mr. MARKEY. Good morning and welcome to this joint hearing of the Energy and Power and Telecommunications and Finance Subcommittees.

This morning our two subcommittees will be examining the public policy issues raised by proposals to allow multistate utility holding companies to enter into the telecommunications industry. The question of what role public utilities should play in developing the information superhighway has been hotly debated during the last several months.

Clearly, utilities offer a potential source of competition in the provision of telecommunications services to the public. They have the technological capacity to provide local telephone service or cable television service. They have a wire going into virtually every home in America, a sophisticated distribution network, and experience in providing an essential service reliably to the public. They also have an interest in making use of telecommunications technologies for energy conservation purposes.

While the prospect of increased competition among providers of telecommunications services and the promise of improvements in energy conservation is welcome, we must also be mindful of the risks to consumers and investors which may be associated with allowing multistate public utility holding companies to diversify into telecommunications. Over the last 60 years, Federal law has recognized that multistate public utility holding companies raise special public policy concerns that require a more extensive scheme of regulation than that imposed on holding companies or free-standing utilities that operate within a single State. This distinction was made because of the widespread abuses associated with giant multistate public utility holding company empires during that great period of expansion in electric utility service earlier in this century.

During this period, certain unscrupulous individuals, such as the infamous utility magnate Samuel Insull, flagrantly abused their monopoly power over the interstate generation and distribution of electricity and natural gas to create enormous utility holding company pyramids that engaged in a wide variety of abusive and speculative activities. These included cross-subsidization of non-utility businesses at the expense of ratepayers, self-dealing transactions among affiliates, manipulation of securities based on fictitious or unsound assets, and the construction of complex corporate structures that defied any effective State regulatory scrutiny or control.

In response to these abuses, Congress enacted the Public Utility Holding Company Act of 1935, or PUHCA. PUHCA requires all multistate utility holding companies to register with the SEC and subjects them to an extensive scheme of pre-approval of their corporate structure, financings, interaffiliate transactions, and acquisitions. In conjunction with Federal regulation of interstate wholesale power rates by FERC, and State utility regulation, PUHCA has protected utility consumers and investors for nearly 60 years from the types of abuses that characterized the operation of utility holding companies during the pre-PUHCA era.

One key element of PUHCA has been its restriction on registered utility diversification into non-utility businesses. Registered utility holding companies have been limited to the operation of a single integrated electric or gas utility system, which generally has been barred from entering into any extraneous businesses. While some limited exceptions to this rule were adopted in 1992 as part of the Energy Policy Act, PUHCA continues to sharply restrict registered holding company diversifications.

Current proposals to allow the registereds to establish communications affiliates exempt from any SEC review or approval under PUHCA represent a significant departure in a long-standing policy that should not be undertaken without very careful consideration. As the philosopher George Santayana warned, "Those who cannot remember the past are condemned to repeat it." While the utility industry of the 1990's is far different from that of the 1930's, we must recognize that human nature has not changed and that the monopoly position that utilities hold over the provision of electricity or gas to the retail consumer continues to create a need for effective Federal and State regulation.

As Congress moves towards opening up competition in the telecommunications industry, therefore, we must assure that we do not inadvertently open up the door for a new generation of Samuel Insulls to milk captive utility ratepayers to fund highly speculative ventures in the telecommunications field. If we cannot assure that effective safeguards against such abuses can be constructed to protect utility consumers and investors, we should not further breach the PUHCA diversification restrictions.

Moreover, as we consider these questions, we should be mindful of the cumulative impact of the diversification exemptions set forth in the Energy Policy Act and those now being proposed for telecommunications. We should carefully consider whether it makes sense to approach the issue of registered utility holding company diversification in a piecemeal fashion, or whether we should instead defer action until such time as the SEC has completed the

comprehensive review of PUHCA that it has just recently undertaken.

As we consider these important questions, I look forward to hearing the testimony of the two distinguished panels of witnesses assembled here today. We would welcome your testimony and your assistance in helping us to understand the questions which must be answered before we consider legislative proposals in that area.

That completes the opening statement of the Chair. I recognize now the Ranking Minority Member of the Telecommunications Subcommittee, the gentleman from Texas, Mr. Fields.

Mr. FIELDS. Mr. Chairman, I want to ask that my statement be placed in the record. The morning is late, I think we are going to be interrupted by votes. Hopefully, we are going to be out fairly early this afternoon.

But suffice it to say this issue was raised during another telecommunications debate. I think this is an important issue. I think there is a high probability that this will be an issue once we get to conference, and I am very optimistic that we will get to conference on a telecommunications bill some time next month, I hope, and certainly if I could have the opportunity to revise and extend, I would appreciate it.

[The prepared statements of Mr. Fields and Mr. Bilirakis follow:]

STATEMENT OF HON. JACK FIELDS

Messr. Chairmen, I want to commend you for holding this oversight hearing today on the entry into telecommunications of registered utility holding companies. I am pleased that we are able to further discuss the entry of registered public utility holding companies into telecommunications since this issue was first discussed during the debate on our infrastructure bill. And as this might very well be an issue which will be discussed in the conference committee (which I remain optimistic will be held in a month or so), I appreciate the timeliness of this hearing.

The world of telecommunications is changing rapidly and we must look at laws which have not been revised in decades. The telecommunications bill we passed out of the House lays the groundwork for a truly competitive marketplace in the future. But as times change, we need to continue to explore more areas of growth not only for this industry, but also for American competitiveness worldwide. Electric utilities have extensive experience in telecommunications operations due to efforts to improve their ability to generate, transmit and distribute electric power and energy. For this reason, I support the study of allowing these holding companies into the new emerging world of broad-band telecommunications on fiber-optic cable.

The Public Utility Holding Company Act of 1935 is a complex statute and we must carefully study the effects of lifting the current diversification restrictions and what far-reaching implications might be a result of this action. One issue I would like to explore with our panel of witnesses today is what types or safeguards they feel might need to be put in place in order to protect electric ratepayers from subsidizing services they might not use.

Again, Messr. Chairmen, I appreciate your efforts in continuing to explore all sectors of the information superhighway and thank you for holding this hearing today.

STATEMENT OF HON. MICHAEL BILIRAKIS

Mr. Chairman, I would like to commend both chairmen for joining together to hold this hearing regarding an issue that is of equal importance to both subcommittees. The Telecommunications Subcommittee, as well as the entire House, has passed legislation to increase competition in the telecommunications industry by bringing in new market participants. During the debate over that bill, it became clear that electric utilities have a significant amount of telecommunications capacity and expertise that has yet to be tapped by the market.

Thus, the House's telecommunications legislation would include electric utilities among those whose telecommunications capacity is subject to the provisions of the legislation. In return, utilities will be free to take advantage of a newly competitive

market. All utilities, that is, with the exception of the 10 companies that are registered under PUHCA.

The question before us today is what, if anything, is unique about the diversification of utilities that are registered holding companies, and what provision needs to be made to ensure that their diversification efforts are fair to both utility and telecommunications consumers and stockholders. I would like to say that I have great faith in our ability to find the answers to these questions, as well as the ability of our State and Federal regulators to promote equitable, competitive markets in both the telecommunications and electricity industries.

Thank you, Mr. Chairman.

Mr. MARKEY. How many are optimistic that we will get to conference on a telecommunications bill?

The gentleman from Indiana, the Chairman of the Energy and Power Subcommittee.

Mr. SHARP. Thank you very much, Mr. Chairman. I would also like to be brief.

You have laid out a number of the issues that concern all of us and I would like to have my opening statement placed in the record, and I just want to thank the gentleman for his cooperation in the months past on this issue and just make a couple of comments.

First of all, your staff, Mr. Chairman, of your subcommittee and the staff on my subcommittee, both Majority and Minority, have been in many conversations intensely examining the opinion in the private sector and trying to get feedback as the memos on the issue demonstrate, so a great deal of work has begun on this issue prior to this hearing.

Of course, we intend to take this hearing very seriously. My point in saying this is that many of us intend to be intellectually prepared to deal with the issue if it comes to the conference committee and I think our other subcommittee members ought to be advised of that so they can be formulating their opinions and feeding into this process in the event we do not legislate on the House side.

Second, let me say as to the substance that it seems to me there are certain absolute conditions that will have to be dealt with, which again you have alluded to in the process if we go forward with a telecommunications exemption for the electric utilities.

First of all, we clearly will have to restore FERC's authority to review all interaffiliate costs. In other words, turn over the Ohio Power case. I think that is simply a precondition without which it is impossible to go forward on this issue because it leaves too much of a regulatory hole in what is one of the issues that we must deal with when we open up the companies to other activities and that is how we relate one affiliate to another or back to the main parent corporation.

Second is, of course, we would have to have strong safeguards on the question of cross-subsidization and with that the question of what if the telecommunications activity fails, goes bankrupt, how do we protect the ratepayers and the folks that have put themselves on the line and cannot get off the line? How do we protect them? That is a precondition that we must work hard to make sure that we are prepared to deal with.

With that, Mr. Chairman, let me say in terms of attitude, dealing with this, I think we have to recognize that the country is undergoing a horrendous change in the private and the public sectors in

this country. And so we are at a time when we cannot afford to be petrified and calcified in our regulatory systems and our governmental policies. They have got to change with the competitive market.

So I think we are wise to have these hearings. We are wise to open up and to thoroughly examine that. That doesn't mean we have to leap to do these things. We want to do them thoroughly and carefully. We simply have to recognize that 5, 10, 15 years from now, 2 years from now, the people will call on the Congress to make corrections in those courses. So far the Constitution anticipates a continuous Congress. There are those that doubt the desirability of that, it appears, in the American public, I hope they are terribly out of place and wrong, but the political climate is such that one does raise questions, but I didn't mean to get off on that issue.

The question is, Mr. Chairman, though, that we have to recognize that this world is changing very rapidly. That is very difficult for many of us who are wedded to various regulatory systems and ways of doing business both in the government and out of the government and so I think it behooves us to be quite open on this issue, but as I tried to indicate in my previous remarks, obviously there are some clear-cut things that we have got to do to help make sure we don't undermine basic consumers in the regulated entities.

Thank you very much, Mr. Chairman.

Mr. MARKEY. The gentleman's time has expired.

[The prepared statement of Mr. Sharp follows:]

STATEMENT OF HON. PHILIP R. SHARP

I appreciate Chairman Markey's cooperation in arranging this joint hearing on the important question of whether registered holding companies should be permitted to diversify into the telecommunications business. This issue defies easy analysis, because it involves multiple policy concerns, and cuts across jurisdictional responsibilities of three Federal agencies. It is particularly appropriate, therefore, that the two subcommittees work together as we try to determine whether such diversification would serve the public interest.

The question of whether registered holding companies should be allowed to diversify into telecommunications raises many arcane questions about the Public Utility Holding Company Act of 1935, known as PUHCA. Many have suggested that this New Deal statute, which has been amended in a substantial manner only once since its adoption, is now outmoded. In fact, the SEC, which administers PUHCA, has begun a top to bottom review of the law to try and come to grips with this issue and plans to offer recommendations to Congress next year.

In light of the problems plaguing the electric utility industry in the early 1930's, PUHCA imposed a complete bar on business diversification by the large, multistate utilities now known as the "registereds." In 1992, following several years of study and debate, Congress enacted two discrete exemptions from PUHCA's nondiversification rule as part of the Energy Policy Act. These changes allowed registereds to set up subsidiaries for independent power production and for investment in foreign utilities.

While some argue that these amendments to PUHCA signal Congress' recognition that the diversification bar is antiquated, I think it is appropriate to take stock of several factors.

First, as I indicated, the changes in EPACT were the product of several years of careful consideration and debate. They were supported by both the SEC and the FERC, and crafted with extensive involvement of both the industry and consumer groups.

Second, EPACT permitted registereds to diversify into activities within their areas of expertise—producing, transmitting, and delivering electricity. While it may not be a determinative factor, it is a different matter to permit them to enter into fields of business in which they are not experienced.

Third, should Congress decide to permit diversification into telecommunications—and I have not yet reached a conclusion about this threshold question—I strongly prefer an approach that maximizes State involvement and preserves FERC's ability to protect consumers. To my mind, it would be irresponsible for Congress to consider further PUHCA amendments on diversification unless a satisfactory resolution of the Ohio Power issue is achieved.

None of these are easy issues, and none should be undertaken without care and deliberation. While there is great appeal to many of the registereds' arguments in favor of diversification, there also is considerable peril in moving too quickly. I approach this issue with an open mind, but also with the knowledge that human nature has not changed much since the 1930's and an appreciation for the protections PUHCA has afforded consumers.

In considering this issue, my guiding questions will be:

—What are the potential risks and benefits for consumers;

—What kinds of protections would be abandoned if we amend PUHCA, and can alternate protections be devised;

—What type of burdens would be imposed on the various State and Federal regulators, and are these costs justified by the net benefit to society.

Mr. MARKEY. My predecessor in Congress, Torbert MacDonald, who held my seat and was the chairman of the Telecommunications and Power Subcommittee, the Telecommunications and Energy Subcommittee until 1975 when the freshman class of 1975 arrived and changed that and split it off so that it would be an Energy Subcommittee and Telecommunications Subcommittee, I am sure up in heaven today he is smiling down knowingly today as the Telecommunications and Power Subcommittees meets to reconcile the intersection of these two jurisdictions.

Mr. SHARP. If the gentleman will yield, I think it is important because some of the past history is current to recognize that a very distinguished gentleman from Michigan who will remain unnamed led very strongly in that battle to separate those out, becoming chairman of the Energy and Power Subcommittee and then rising to other positions.

Mr. MARKEY. He also looks down today as well.

Mr. SHARP. So one should be careful how one writes this history. Thank you.

Mr. MARKEY. The gentleman's time has expired. The Chair recognizes the gentleman from Ohio, Mr. Oxley.

Mr. OXLEY. I have no opening statement.

Mr. MARKEY. The Chair recognizes the gentleman from Ohio, Mr. Gillmor.

Mr. GILLMOR. I have no opening statement,

Mr. Chairman.

Mr. MARKEY. The Chair recognizes the gentleman from Colorado, Mr. Schaefer.

Mr. SCHAEFER. I thank the Chair. Certainly I am appreciative of the fact that you have called this joint hearing today and I am really pleased to see our colleague, Mr. Boucher, propose an amendment permitting registered public utility holding companies to provide telecommunications services over their excess fiber capacity.

As we know, the vast majority of utility companies are already able to provide such services. But Federal law prevents the largest utilities from joining the universe of potential competitors to the existing telephone companies. I think that this is very good, Mr. Chairman, that you are holding this hearing and would just ask that the remainder of my statement be submitted for the record.

Mr. MARKEY. Without objection, so ordered.

[The prepared statement of Mr. Schaefer follows:]

STATEMENT OF HON. DAN SCHAEFER

This committee has spent the better part of the last year seeking ways to increase competition in the telecommunications market. We have taken this step because we all agree that competition is a better regulator of prices and services than the government.

For that reason, I was pleased to see my colleague, Mr. Boucher, propose an amendment permitting registered public utility holding companies to provide telecommunications services over their excess fiber capacity.

The vast majority of utility companies are already able to provide such services, but Federal law prevents the largest utilities from joining the universe of potential competitors to the existing telephone companies.

I do believe that there are regulatory issues that need to be worked out and I am grateful to the chairman for calling this hearing for that purpose. The benefits of allowing the registered public utility holding companies to provide telecommunications services, however, are significant enough that I believe we can work out whatever problems remain.

I yield back.

Mr. MARKEY. The Chair recognizes the gentleman from Virginia, Mr. Boucher.

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

I want to commend you and Chairman Sharp for holding this joint hearing today. I think it is particularly timely in view of the very broad support that exists in the Senate for including in the telecommunications reform legislation freedoms for the registered electric utilities to offer communications services. We need to develop a House position on this matter in anticipation of the conference, and the hearing today is a very important and necessary first step in that process.

Seventy percent of the electric utilities are free today to offer telecommunications services. These are the utilities that are not subject to the Public Utility Holding Company Act. The remaining 30 percent which are subject to PUHCA are prohibited from offering those services but that freedom, in my opinion, should be granted.

Most electric utilities are evaluating today the benefits of installing demand-side management and the equipment that is necessary to facilitate that. Demand-side management itself can help to control the time of day in which various appliances are used and, therefore, once widespread, significantly relieve the necessity of building new power plants. Demand-side management and the other internal communications needs of the companies require only about 2 percent of the bandwidth on the fiber optic networks that are being deployed in order to facilitate those functions. That leaves 98 percent of bandwidth free for things such as the commercial telecommunications offerings.

Allowing the 30 percent of the industry that is barred by PUHCA from offering communications services today into that market makes sense from a telecommunications perspective. That is the thrust of the testimony today of the FCC; that is also the position of the administration. Vice President Gore has spoken very eloquently about the need to free electric utilities to offer communications services. And I think we all would agree that from a communications standpoint it makes sense to do precisely that.

Therefore, I think two questions remain. The first of these is what kinds of mechanisms should we put in place in order to en-

sure consumer safeguards against cross-subsidy, and the second question is what, if anything, should we ask from the registered electric utilities in return for the freedom we are granting them to offer communications services. In other words, in what area are we seeking their cooperation?

Addressing the first question with respect to consumer safeguards, I would note that when in the 101st Congress I proposed that telephone companies be free to offer cable TV services within their telephone service areas as a means of lowering prices, promoting competition, and encouraging the deployment of a more capable infrastructure, that proposal was very controversial. The Consumer Federation of America, among others, were very insistent that it was impossible to put in place the structural separations that could effectively police against cross-subsidy. The cable industry for obvious reasons of self-interest then joined that chorus.

Now, of course, several years later we are on the verge of allowing telephone entry into cable and local exchange competition, and the benefits of those changes are almost universally touted as reflected by the vote of 423 to 4 in support of those changes earlier this month in the House of Representatives.

We found the structural safeguards necessary to protect consumers against cross-subsidies in those circumstances and I think we can as well with respect to electric utilities offering communications services.

In answer to the second question, Mr. Chairman, I would strongly suggest that we use this opportunity to correct the holding of the U.S. Court of Appeals in the Ohio Power case. And I was very pleased to hear Mr. Sharp make the same suggestion. I join with him in urging that we link these issues together.

We need to give FERC the opportunity to review the consumer implications of interaffiliate contracts among the affiliates of registered electric utilities. The Court of Appeals in the Ohio Power case denied that opportunity. We need to restore that power to FERC. I have introduced legislation that would restore FERC jurisdiction in those instances, and I strongly urge that measure be linked to telecommunications freedom for electric utilities.

We should also, Mr. Chairman, have due regard for a similar approach that has been taken in the Senate in which the Banking and Energy Committees that share PUHCA jurisdiction in the Senate have crafted an Ohio Power approach that has been endorsed both by the registered utilities and by the Coalition for PUHCA, that is the group of consumer organizations assembled around the Ohio Power issue.

The Senate Banking and Energy Committees have approved and forwarded to Senator Hollings for inclusion in the telecommunications reform legislation a provision that would allow the registered electric utilities to offer communications services. So the two committees in the Senate that have PUHCA jurisdiction have spoken on the subject, have urged linkage of these two proposals, and have endorsed both of these means.

I think it is, therefore, very probable that the Commerce Committee will accept the PUHCA recommendations of these committees and permit the registereds to offer telecommunications services. We have a sense of that from the very broad freedom that

Senator Hollings would have given to the registereds in his initial telecommunications reform legislation.

I have circulated a draft bill that would also provide that freedom and would set up structural safeguards to protect consumers against the possibility of cross-subsidies. It is borrowed, I would add, Mr. Chairman, from the Markey-Fields provisions with respect to telephone companies offering cable TV service and I think, therefore, it has a great deal of scholarship and thought behind it, and I would strongly recommend it to this committee for its consideration. However, if additions are needed in order to perfect it, I will be very willing to work with you and others in making those needed changes.

Thank you, Mr. Chairman, and I look forward to hearing today's testimony.

Mr. MARKEY. The gentleman's time has expired.

Mr. MARKEY. The gentleman from Idaho, Mr. Crapo.

Mr. CRAPO. I have no opening statement.

Mr. MARKEY. The gentleman from Texas, Mr. Hall.

Mr. HALL. Mr. Chairman, I would like for my statement to be put in the record, but I just would like to say you refer to your predecessors. As I think you know, one of the previous Representatives from my district, Mr. Sam Rayburn, was the sponsor of PUHCA and he considered this act to be one of his greatest legislative achievements.

I think most of you know that PUHCA was created during the New Deal era when Mr. Rayburn was chairman of the Interstate and Foreign Commerce Committee. He held a lot of sensational hearings and they are very interesting to go back and read if you have the time to do it. Mr. Rayburn referred to public utilities, with the layers of holding companies, as blood suckers, and he was quite adroit in zeroing right in on what he thought.

But times change and laws have to change in order to reflect current conditions. That is why I support Mr. Boucher's efforts to reexamine the role of PUHCA as it relates to telecommunications. I think, as Mr. Boucher has said during the debate on the Markey-Fields bill several months ago, most members of the committee agreed that electric utilities can and should provide competition in the provision of various telecommunications services.

And I guess my question simply, Mr. Chairman, is why should registered utilities be treated any differently than nonregistereds on this issue? And when you look at the basic fact that both registereds and nonregistereds are equally equipped to provide telecommunications services, it seems that it doesn't make any sense to prohibit one type while giving the green light to the other. So I guess we ought to be fair about this and we ought to be thinking about the future, not just the past.

Nobody respects Sam Rayburn any more than I do. If you think he is dead, go to Bonham, Texas, and say something about him. He is still very much alive. We have to recognize that the New Deal did a lot of good things, but what was good back in that day and time is not always good today. We have to get not a New Deal but the best deal for the 21st Century, and I thank the chairman for this good hearing.

Mr. MARKEY. The gentleman's time has expired.

[The prepared statement of Mr. Hall follows:]

STATEMENT OF HON. RALPH M. HALL

Mr. Chairman, or Chairmen: Thank you for putting together this hearing on the Public Utility Holding Company Act and its effect on the efforts of registered holding companies to provide telecommunications services. As some of you know, one of the previous representatives from my district, Mr. Sam Rayburn, was the sponsor of PUHCA, and he considered the Act to be one of his greatest legislative achievements. During the early 1930's, Mr. Rayburn served as the chairman of this committee, and he uncovered a number of very serious abuses in the electric utility industry which led to the passage of PUHCA in 1935. So I have a lot of respect for this Act and what it did to clean up the electric utility business.

That said, we have to recognize that both the communications industry and the electric utility industry have changed a great deal since 1985, not to mention 1935. Times change, and laws have to change in order to reflect current conditions. That's why I support Mr. Boucher's efforts to re-examine the role of PUHCA as it relates to telecommunications.

Some of our witnesses today will say that PUHCA is still important for protecting electricity consumers. Fair enough. But I don't think a compelling argument has been made that allowing PUHCA-registered utilities to provide telecommunications services would, in some way, gut the Holding Company Act. I believe it is possible to build firewalls between a registered electric utility and its telecommunications affiliate. These two subcommittees have dealt with equally complex issues in the past—why can't we do the same on this issue?

During the debate on the Markey/Fields bill several months ago, most members of the committee agreed that electric utilities can and should provide competition in the provision of various telecommunications services. My question is this: Why should registered utilities be treated any differently than non-registereds on this issue? When you look at the basic fact that both registereds and non-registereds are equally equipped to provide telecommunications services, it seems to me that it makes no sense to prohibit one type, and give the green light to the other.

We ought to be fair about this, and we ought to be thinking about the future, not just the past. No one respects the work of my predessor, Mr. Rayburn, more than I, but we have to recognize that the New Deal may not always be the best deal for the 21st century.

I thank the Chair, and yield back my time.

Mr. MARKEY. Are there any other members seeking recognition for the purposes of making an opening statement? The Chair sees none.

We will turn to our opening panel and we will recognize Hon. Elizabeth Moler, who is the Chair of the Federal Energy Regulatory Commission. We welcome you. Whenever you feel comfortable, please begin.

STATEMENT OF ELIZABETH A. MOLER, CHAIR, FEDERAL ENERGY REGULATORY COMMISSION

Ms. MOLER. Thank you, Mr. Chairman and members of the subcommittees. It is a pleasure to be before you today to discuss this matter of critical concern to the FERC. As the subcommittees have requested, I will give an oral summary of my written statement, which has been submitted for the subcommittee's hearing record.

As a general matter, I do not oppose diversification by registered holding companies into the telecommunications business. As several members have observed this morning, most utilities are free to do so now under existing law. However, diversification does pose risks for electricity consumers. I, therefore, would oppose legislation that would permit diversification unless there are also appropriate safeguards that permit the Federal Energy Regulatory Commission and State regulatory authorities to adequately protect ratepayers served by registered holding companies.

My written statement discusses our concerns about self-dealing and cross-subsidization. Simply put, FERC and the States must have the authority to protect consumers by setting rates that guard against both types of abuses.

To ensure this, we need Congressional action to overturn the court's Ohio Power decision. I am pleased to note that our position taken 2 months ago before this subcommittee on the Ohio Power decision has gained some currency in the subcommittee, so I will not belabor the point.

We also need to leave intact our authority under existing law to deal with cost allocation issues. Both H.R. 4645 and S. 554 as ordered reported from the Senate Energy and Natural Resources Committee meet those objectives.

Thank you, Mr. Chairman.

Mr. MARKEY. Thank you very much.

[The prepared statement of Ms. Moler follows:]

STATEMENT OF ELIZABETH ANNE MOLER

Mr. Chairmen and members of the subcommittees: I am pleased to be here this morning to discuss current proposals to allow registered public utility holding companies to enter into the telecommunications business. The Federal Energy Regulatory Commission (Commission) is responsible for protecting electricity ratepayers from the potential risks and affiliate abuses that may occur when utilities diversify into non-utility businesses. As a result of a recent Federal court decision involving the Ohio Power Company, the Commission's ability to provide such protection to customers served by registered holding companies has been severely impaired. Therefore, I urge Congress to permit telecommunications diversification only if it gives the Commission adequate authority to protect ratepayer interests.

As a general matter, I do not oppose diversification by registered holding companies into the telecommunications business. Utilities that are not part of registered systems generally have latitude to make these investments, subject perhaps to some limitation under State law. In principle, I do not see why registered holding companies should not have the same business opportunities.

However, diversification does pose risks for electricity consumers. I therefore would oppose legislation that would permit diversification unless there are also appropriate safeguards that permit FERC and State regulatory authorities to adequately protect ratepayers served by registered holding companies. I will therefore direct my testimony primarily to current legislative proposals that restore FERC and State authority to address rate regulatory issues that may arise when utilities diversify.

From a rate regulatory perspective, diversification raises two major areas of concern—self-dealing and cross-subsidization. When a utility acquires goods and services from a non-utility affiliate, the potential exists for the utility to pass excess charges through to its customers. To insulate ratepayers from the risks of self-dealing, FERC and the States need authority to review affiliate transfer charges and to disallow improper charges.

Cross-subsidization occurs when costs incurred for the nonutility enterprise are borne by the registered holding company's utility subsidiaries. This occurs most typically when the holding company improperly allocates shared costs (such as costs of capital, management services or similar costs) between utility and non-utility subsidiaries in holding company systems. To insulate ratepayers from cross-subsidization, rate regulators need adequate access to relevant books and records and the authority to review and alter cost allocations within registered systems.

We cannot address the first area of concern—self-dealing—without Congressional action to overturn the Ohio Power decision. That decision stripped away our authority to review affiliate purchases of goods and services by public utility members of registered holding companies. This would include telecommunications services and any other service provided by a non-utility affiliate within a holding company system. I refer the subcommittees to my May 26, 1994, testimony before the Subcommittee on Energy and Power on this matter. Very simply, Congress should not permit the diversification of registered utility holding companies into telecommunications activities unless the Commission can effectively review, and disallow in

rates, improper transfer charges between utility and non-utility subsidiaries in the same registered holding company system.

With respect to cross-subsidization, I believe that the Commission has adequate authority under current law to review relevant books and records and to detect and remedy improper cost allocations. I strongly urge the committee not to alter current law in a manner that would seriously impair our authority to review cost allocations.

Currently there are two relevant legislative proposals that I would like to discuss. They are H.R. 4645, an amendment to section 318 of the Federal Power Act, introduced by Representatives Boucher, Sharp, Markey and Dingell on June 24, 1994; and S. 544, an amendment to section 318 introduced by Senator Bumpers. An amended version of S. 544 was ordered reported by the Senate Energy and Natural Resources Committee on July 22, 1994. My comments on S. 544 refer to the bill as ordered reported.

Both H.R. 4645 and S. 544 would remedy the regulatory gap created by the Ohio Power court decision. The Commission could disallow costs of affiliate transactions that were imprudently incurred or otherwise not just and reasonable under the Federal Power Act. Under both proposals there would be a rebuttable presumption that such costs, if approved by the SEC pursuant to section 13(b) of PUHCA, are just, reasonable and not unduly discriminatory or preferential. These provisions, by themselves, would restore the law to what the Commission thought it was prior to the Ohio Power decision. I strongly support these provisions.

However, the two proposals go further than restoration of pre-Ohio Power ratepayer protection. First, S. 544 addresses state authority to disallow costs incurred under an SEC-approved contract. Second, S. 544 restricts the Commission's authority to alter SEC cost allocations. H.R. 4645 contains no comparable provisions. Third, the proposals contain different grandfather provisions. I will discuss these differences in detail.

S. 544 establishes that state commissions as well as the FERC have authority to disallow costs incurred under contracts approved by the SEC under section 13(b). Based on the DC Circuit's "trapped cost" analysis, it is arguable that state authority could also be restricted by Ohio Power. Therefore, I believe it is useful to clarify state authority.

The second major difference between H.R. 4645 and S. 544 is that S. 544 would address potential conflicts between Commission and SEC cost allocations involving registered holding companies. The provision states that the Commission shall give substantial deference to an SEC allocation of charges for services, construction work or goods among associate companies under section 13 of PUHCA.

This provision goes beyond the issue presented by the Ohio Power case, which did not address conflicts in Commission/SEC cost allocation. The Commission has two primary concerns with altering its authority to review allocations of costs within holding company systems. The first is a concern with cross-subsidization. Historically, there have been few conflicts between the FERC and the SEC regarding cost allocations. However, if registered companies are given increased authority to diversify, correct allocation of costs between utility and nonutility businesses becomes all the more important. The customers of public utility subsidiaries of a registered holding company should not subsidize the activities of the non-utility subsidiaries. I believe very strongly that the FERC, with its well established procedures for analyzing the passthrough of costs in wholesale rates, is the appropriate agency to protect customer interests. We do this for every other public utility in the Nation. There is simply no reason why registered companies should have a lesser level of regulatory scrutiny.

Second, it is also our job to ensure that costs of goods and services properly allocated to the public utility members of a holding company as a whole should be allocated among those public utility members on a fair and non-discriminatory basis. For example, costs of construction work on a new system generating unit or transmission line should be allocated on a nondiscriminatory basis. It is critical that the Commission retain jurisdiction to review cost allocations and that PUHCA not be used by registered companies as a shield from effective FERC rate regulatory review.

H.R. 4645 is silent on the section 13(b) cost allocation issue and would therefore retain FERC's full unrestricted authority to alter section 13(b) SEC allocations. Under the S. 544 provision, the Commission would have to give substantial deference to SEC allocations, although it would still have the authority to change the allocation prospectively. While I do not believe that current law poses an undue burden on registered companies, the provisions of S. 544 do not severely compromise our ability to effectively review and approve cost allocations. However, I would strongly oppose any provision that further diminished our authority to review cost

allocations under the well established legal standards and public procedures we follow under the FPA.

The third difference between H.R. 4645 and S. 544 is the breadth of the grandfather clauses. H.R. 4645 would preclude the Commission from reviewing any costs incurred and recovered under section 13(b) contracts prior to the date of enactment. This would apply not just to fuel costs, but to any other section 13(b) costs incurred and recovered. It would not preclude our review of costs incurred after date of enactment, even if the section 13(b) contract was approved prior to date of enactment.

The S. 544 grandfather provision is slightly broader. It would grandfather any costs incurred and recovered prior to July 15, 1994, and in addition any costs prudently incurred on or before December 31, 2000, pursuant to contracts or arrangements for fuel sold from Windsor Coal Company or Central Ohio Coal Company. I have no objection to this limited expansion of the H.R. 4645 grandfather provision. It applies solely to the Ohio Power companies and gives the Commission the ability to disallow imprudently incurred costs by the two coal companies.

In sum, I believe that H.R. 4545 and S. 544 each effectively overturns the Ohio Power court decision and restores the Commission's authority to effectively regulate public utility members of registered holding companies. If such legislation is enacted, it will go a long way toward protecting against potential abuses associated with telecommunications activities as well as other affiliate investments. I urge Congress to allow telecommunications diversification only if the Commission is given adequate authority to protect consumers served by registered holding companies.

I would be happy to answer any questions.

Mr. MARKEY. Our next witness is Hon. Richard Roberts, who is a Commissioner for the Securities and Exchange Commission. We welcome you back. Whenever you are ready, please begin.

STATEMENT OF RICHARD Y. ROBERTS, COMMISSIONER, SECURITIES AND EXCHANGE COMMISSION

Mr. ROBERTS. Thank you, Chairman Markey, Chairman Sharp, and members of the subcommittee.

I, too, have submitted a written statement for the record. I appreciate the opportunity to testify on behalf of the Securities and Exchange Commission, which I will refer to as the SEC today, regarding the policy issues presented by the desire of registered utility holding companies to diversify into the telecommunications industry and regarding other issues more generally related to the framework of regulation under the Public Utility Holding Company Act of 1935 and the Federal Power Act. I will refer to the Public Utility Holding Company Act of 1935 as the 1935 Act.

When I was before the Energy and Power Subcommittee in May of this year, I attempted to address the subcommittee's concerns with the Ohio Power judicial decision. As part of that testimony, some may recall that I announced that the SEC resolved to conduct a comprehensive study of the 1935 Act with a view to making both legislative and regulatory recommendations to streamline and modernize the 1935 Act. The first step towards completion of the study was taken last week when the SEC sponsored a roundtable discussion concerning all aspects of the 1935 Act. The roundtable was widely attended, including participants from the industry, Wall Street, and academia. The panel also included Federal and State regulators, as well as other spokespersons for investors and consumers.

The subject of diversification of registered utility holding companies into the telecommunications business and other businesses was discussed at length. There were presented strongly divergent

views on the appropriateness of permitting registered utility holding companies to pursue diversification in general.

In summary, the industry, Wall Street, and the economists were of the view that there should be no regulatory barriers to diversification. The States raised general concerns and appeared inclined to favor some Federal presence. The rating agencies opined that the registered holding companies obtain better ratings and presented less risk for the very reason that their diversification opportunities were limited. The consumer representatives generally opposed the relaxation of regulation in this area.

The SEC intends to continue to work on the study with a view to completion by next summer and anticipates making both regulatory and legislative recommendations on many aspects of the 1935 Act.

A rough consensus did emerge from the roundtable participants on the possibility of several discrete reforms of the 1935 Act to achieve a more cost-effective and efficient regulatory approach. Prior to completion of the study, it is not anticipated that the SEC will take a position on proposed legislation in this area, including telecommunications legislation.

This disclaimer notwithstanding, I would be pleased to attempt to answer any questions that the members of the subcommittees may have. Thank you.

Mr. MARKEY. Thank you very much, Mr. Roberts.

[The prepared statement of Mr. Roberts follows:]

STATEMENT OF HON. RICHARD Y. ROBERTS

Chairman Markey, Chairman Sharp and members of the subcommittees: I appreciate this opportunity to testify on behalf of the Securities and Exchange Commission ("Commission" or "SEC") regarding telecommunications and registered public-utility holding companies. Among its other responsibilities, the Commission administers the Public Utility Holding Company Act of 1935 ("1935 Act"). The public-utility holding companies subject to the 1935 Act operate across the United States, serving a vast number of utility consumers.[1]

The utility industry has undergone many changes in recent years. The Energy Policy Act of 1992, in particular, has accelerated competition in the electric industry, and enabled United States companies to invest in utility operations around the world. It is too early to tell whether these ventures will be successful, or to predict how the diversification permitted under the Energy Policy Act will ultimately affect millions of investors and consumers. The diversification by utilities into telecommunications activities would represent another fundamental change for the industry, one that could affect the interests of millions of Americans.

The 1935 Act was New Deal legislation, adopted by Congress to reform the United States gas and electric utility industry. Prior to 1935, the utility industry had been plagued by abuses that threatened the interests of investors and consumers. The concentration of control made possible by the holding company structure enabled a small group of investors to exploit the operating companies, to the detriment of other security holders and consumers who had no alternative but to purchase from the local utility company. Revenues from utility operations provided a ready source of funds that could be diverted to unrelated speculative ventures.

The 1935 Act was intended, among other things, "to prevent the milking of operating companies in the interest of the controlling holding-company groups."[2] The statute is complex and far-reaching. Its fundamental goal was the simplification of

[1] This statement will focus primarily on registered public-utility holding companies, which have multistate utility operations and are closely regulated under the 1935 Act. It should be noted, however, that many of the concerns expressed about diversification by the 14 registered holding companies apply with equal force to the several hundred exempt public-utilityholding companies that can already engage in telecommunications activities largely without restriction under the 1935 Act.

[2] S. Rep. No. 621, 74th Cong., 1st Sess. 34 (1935).

public-utility holding companies, "so that each holding company will control the management of only a single system of operating companies, which single system is not mixed up with any extraneous businesses."[3]

In this regard, the Commission and the courts have interpreted the 1935 Act to require a "functional relationship" between a nonutility interest and the core utility operations of a registered holding company system.[4] The functional relationship requirement was intended to focus the attention of the registered holding company on the needs of its operating utilities, and so protect consumers and investors from the risks that might be associated with unrelated businesses.

There have been several important statutory exceptions to this requirement, beginning with the Public Utility Regulatory Policies Act of 1978 ("PURPA"). Under PURPA, [5] and related legislation, [6] a registered holding company can acquire interests in "qualifying facilities" that are unrelated to its core utility operations.[7] The Gas Related Activities Act of 1990 ("GRAA") permits a registered gas company to acquire gas production and transportation assets that do not directly serve the needs of its retail distribution system.[8] Most recently, the Energy Policy Act of 1992 amended the 1935 Act to permit a registered holding company to invest in "exempt wholesale generators" and "foreign utility companies" that are unrelated to its system utility operations.[9]

Although Congress relaxed the "functional relationship" standard under the PURPA legislation and the GRAA, it did not dispense with the need for Commission approval, by order upon application, for the acquisition of interests in these other businesses. Thus, an acquisition of an interest in a qualifying facility or gas production or transportation activities continues to be measured under the other standards of the 1935 Act, including section 10(b)(3), which generally requires that an acquisition not be detrimental to the public interest or the interest of investors or consumers.

In contrast, the Energy Policy Act broadly exempts exempt wholesale generators from all provisions of the 1935 Act and expressly authorizes a registered holding company to acquire an exempt wholesale generator without the need to apply for, or receive, Commission approval. At the same time Congress sought to promote this type of diversification, it charged the Commission with the primary responsibility for protecting the interests of consumers of registered holding companies from the adverse effects, if any, of these new ventures. This mandate has proved troublesome because the Commission's authority in this area is sharply curtailed. The Commission can regulate investments in exempt wholesale generators only indirectly, through its jurisdiction over holding company financings and other related transactions. Although the Commission has adopted rules regarding exempt wholesale generators that are intended to protect consumers and investors from any substantial adverse effect that may be associated with these new ventures, these rules are currently being challenged in litigation before the United States Court of Appeals for the District of Columbia Circuit. The Court of Appeals has been asked to consider the extent to which the Commission must ensure the protection of consumers of registered holding companies from any detriment associated with investments in exempt wholesale generators.[10]

The Commission has noted that there is an inherent tension between the drive toward competitive markets and the demand for effective consumer protection.[11] It appears that a similar tension would attend any initiative to permit further diversification into nonutility ventures such as telecommunications. Chairman Levitt, in a letter to Chairmen Markey and Sharp, and Congressman Boucher, indicated that such diversification would raise serious concerns about investor and consumer protection. Among other things, participation as entrants in highly competitive tele-

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[3] *Id.* at 11.

[4] *See Michigan Consolidated Gas Co.* v. *SEC,* 444 F.2d 913 (DC Cir. 1971); *CSW Credit, Inc.,* Holding Co. Act Release No. 25995 (Mar. 2, 1994).

[5] 16 U.S.C. 824a-3.

[6] Pub. L. No. 99-186, 99 Stat. 1180 (1985); Pub. L. No. 99-553, 100 Stat. 3087 (1986); Pub. L. No. 102-486, 713, 106 Stat. 2776, 2911 (1992) (Section 713 of Energy Policy Act of 1992).

[7] Under PURPA regulations, most qualifying facilities are deemed to be nonutilities for purposes of the 1935 Act.

[8] Gas production and transportation activities are nonutility businesses for purposes of the 1935 Act. *See* section 2(a)(4) of the Act (defining "gas utility company" to include only assets used for the distribution of natural gas at retail).

[9] Pub. L. No. 102-486, 106 Stat. 2776 (1992).

[10] *NARUC* v. *SEC,* Docket No. 93-1778. The appeal concerns rules that the Commission was required to promulgate under the Energy Policy Act. The Commission is currently engaged in a similar rulemaking with respect to investments in foreign utility companies. *See* Release No. 35-25757, 58 Fed. Reg. 13719 (March 15, 1993) (proposing release).

[11] Release No. 35-25886, 58 Fed. Reg. 51488 (Oct. 1, 1993).

communications markets may involve risks not previously encountered by registered holding companies in their nonutility ventures. The Commission notes that the results of recent utility diversification generally have not been positive, as evidenced by the experiences of exempt holding companies, such as Pinnacle West Capital Corporation, Pacific Enterprises, Florida Power & Light Company, and Hawaiian Electric Industries, Inc., that had invested in unrelated businesses such as real estate, retail drug stores, financial institutions and insurance companies in the 1980's. On the other hand, exempt holding companies such as Duke Power Co. and WPL Holdings, Inc. appear to have successfully diversified into areas such as real estate development and managing passive investments.

While the Commission recognizes the industry's need to respond to changing conditions, we urge the subcommittees to proceed cautiously. The Commission's resources have already been strained by the responsibilities imposed by the Energy Policy Act. At present, registered holding companies can readily invest up to $7 billion in exempt wholesale generators and foreign utility companies.[12] Diversification by these companies into telecommunications would represent another capital-intensive venture. The potential size of the aggregate investment in these entities—exempt wholesale generators, foreign utility companies, and telecommunications businesses—raises concerns whether any regulator can effectively protect and balance the interests of investors and captive utility customers.

Congress, in 1935, struck a careful balance in the 1935 Act between the public interest and the interests of investors and consumers, and the industry's need for flexibility. It is difficult to assess the merits of diversification in isolation of other provisions of the 1935 Act, and the role played by other replators, such as the Federal Energy Regulatory Commission and state and local regulators. If Congress determines to permit utilities to diversify into the telecommunications business, it should expressly take into account the competing interests and carefully craft any resulting legislation. The Commission strongly recommends that Congress not duplicate the model developed under the Energy Policy Act, if it determines to legislate in this area.

Recognizing the complexity of the issues raised by diversification, the Commission has undertaken a comprehensive study of the 1935 Act, to determine how the statute can be modernized, yet continue to serve the interests of investors and consumers in coming years. The Commission inaugurated the study with a roundtable discussion on July 18th and 19th of this year. The participants included industry leaders, State, local and Federal regulators, investment bankers, economists, a consumer advocate and representatives of rating agencies.

Although, as was expected, there was a wide divergence of opinion among the participants, there were some issues on which a consensus emerged. In particular, all participants agreed that the status quo is unacceptable. No one argued in favor of an unreformed 1935 Act.

At the same time, there was no consensus for repeal. The holding companies and the economists almost uniformly favored repeal, arguing that the industry is becoming more competitive, and that market forces will provide sufficient discipline. The States and the consumer advocate generally opposed repeal. They contended that, although segments of the gas and electric industry are becoming competitive, retail distribution will remain a monopoly for some time to come. Accordingly, they suggested that regulation is needed to protect the customers held captive in those monopolies. There does not appear to be much middle ground on this issue.

A rough consensus did emerge, however, on the possibility of several discrete reforms. If the core protections of the 1935 Act are preserved, it appears that there could be agreement on liberalizing the standards for financings, acquisitions and diversification, including telecommunications.

The Commission plans to explore these issues by publishing a concept release for public comment later this fall. The results of the study, together with a series of recommendations to achieve a more efficient regulatory approach, will be released next summer. Until the study is completed, however, it is not anticipated that the Commission would take a position on proposed legislation in this area.

In conclusion, the Commission will be pleased to assist the committee in any way possible, by briefing the members on the study, and making staff available to pro-

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[12] Although the Energy Policy Act did not limit the amount of capital that may be invested in these entities, Congress did direct the Commission to promulgate rules to protect the financial integrity of the other companies in a registered holding company system. In this regard, the Commission has adopted a limit of 50 percent of a system's consolidated retained earnings, or approximately $7 billion for the 14 registered holding companies. *See* rule 53 under the Act.

vide technical assistance on any legislation.[13] If the committee chooses to move forward with legislation prior to the completion of the study, we would urge you to consider what, if any, tools and resources should be provided to the Commission to accomplish any oversight that you may deem appropriate.

Mr. MARKEY. Our next witness is Mr. Michael Katz, who is the Chief Economist of the Federal Communications Commission.

STATEMENT OF MICHAEL L. KATZ, CHIEF ECONOMIST, FEDERAL COMMUNICATIONS COMMISSION

Mr. KATZ. Mr. Chairman and members of the subcommittees, as the Chief Economist of the Federal Communications Commission, I welcome this opportunity to appear before you to testify regarding draft proposals to allow registered public utility holding companies to enter into telecommunications markets. Chairman Hundt has asked me to extend his apologies for not being able to be here himself. He is testifying this morning before the Senate's Committee on Commerce, Science, and Transportation's Subcommittee on Communications concerning the Commission's authorizations for fiscal year 1995.

As Chairman Hundt has testified, the Commission believes that open competitive entry into telecommunications markets generally serves the interests of both consumers and suppliers. Competition spurs firms to set efficient cost-based prices, encourages firms to lower their costs and stimulates innovation.

While in general I welcome competitive entry, entry by a regulated entity that possesses market power in another market does raise concerns. In particular, there is danger that absent regulatory oversight, the firm may engage in cross-subsidization of its new services by raising the prices of its existing regulated services. As a result, customers of these services would be charged inefficiently and unfairly high prices. Moreover, in the presence of cross-subsidization, the firm may prevail in its new markets even when it is neither truly the low-cost supplier nor the supplier offering the best service quality to consumers.

Electric and gas companies are well positioned to be facilities-based competitors in telecommunications markets because of their comprehensive rights of way and the fact that many already operate their own telecommunications transmission facilities for private use.

Thus, the potential entry by firms affiliated with utilities offers a prospect of facilities-based competition and the benefits that can generate for a range of telecommunications services.

However, because local utility services typically are provided to consumers on a monopoly basis, utilities' entry into telecommunications markets also raises important concerns about the risk of cross-subsidization. Adequate safeguards must be established to ensure that the costs of competitive telecommunications services are not recovered improperly from charges assessed to utility ratepayers.

The draft language in Congressman Boucher's and Senator Riegle's proposals recognize this risk. Congressman Boucher's draft

[13] In this regard, the Commission staff has provided technical comments on the legislative proposal by Representative Boucher. The Commission staff has not yet responded to the most recent version of the staff discussion draft prepared by Senator Riegle's office.

bill would require the establishment of a separate communications affiliate, explicitly prohibits cross-subsidization, and proposes various other safeguards that are intended to deter such practices. Senator Riegle's draft bill also requires separation and would direct the FCC to prescribe regulations to prohibit anticompetitive behavior.

The Federal Communications Commission has extensive experience implementing safeguards to prevent cross-subsidization. However, entry by a registered holding company or associate company raises a unique set of regulatory challenges. In this case, the FCC would have direct jurisdiction only over the communications entity. The holding company and other associate companies would be subject to regulation by other Federal or State authorities.

Enforcement of the cross-subsidization prohibition presents a greater degree of challenge than in the case in which a single agency has jurisdiction over all of the entities. There is a need for close cooperation among the various regulatory bodies to ensure that there are no regulatory gaps and that the regulations of the different agencies are not inconsistent with one another.

In summary, open competitive entry into telecommunications markets generally fosters lower prices, more diverse consumer choices, and technological innovation. But the resulting competition must not be distorted by cross-subsidies.

I welcome the opportunity to answer any questions that you might have.

Mr. MARKEY. Thank you very much, Mr. Katz.

[The prepared statement of Mr. Katz follows:]

STATEMENT OF MICHAEL L. KATZ, CHIEF ECONOMIST, FEDERAL COMMUNICATIONS COMMISSION

Mr. Chairmen and members of the subcommittees: As the Chief Economist of the Federal Communications Commission, I welcome this opportunity to appear before you to testify regarding draft proposals to allow registered public utility holding companies to enter into telecommunications. Chairman Hundt has asked me to extend his apologies for not being able to be here himself but, as we speak, he is testifying before the Senate's Committee on Commerce, Science and Transportation's Subcommittee on Communications concerning the Commission's authorization for fiscal year 1995.

We are on the verge of a transition to a new competitive world, in which the average consumer will be able to choose among competing suppliers of local, video, long distance, and wireless services. The Committee on Energy and Commerce has already made a major contribution toward the goal of realizing the potential benefits of these changes in the telecommunications industry. The overwhelming passage by the full House of Representatives of H.R. 3626, the Antitrust and Communications Reform Act of 1994 on June 28, 1994, demonstrates that the commitment to competition, universal service, economic growth, and job creation is broadly shared. H.R. 3626 represents a vision of a national information infrastructure that will enrich all areas of the country. I look forward to working with everyone else at the Commission to implement this landmark legislation.

H.R. 3626 promotes competition through open entry policies. Open competitive entry into telecommunications markets generally serves the interests of both consumers and suppliers. The potential entry by firms affiliated with utilities offers the prospect of facilities-based competition for a range of telecommunications services. I applaud this hearing's exploration of the potential utilities have for bringing further competition to all sectors of the telecommunications industry.

The draft bills reflect a view that a competitive environment in telecommunications holds the greatest benefit for all Americans. The relationship of this goal to the Public Utility Holding Companies Act of 1935 ("PUHCA") involves a range of issues, some of which are outside the responsibility of the Federal Communications Commission. My comments are based only on my review of the proposals of Con-

gressman Boucher and Senator Riegle to create an exemption to the general restrictions on registered utility diversification into non-energy businesses in the context of the Communications Act of 1934, as amended ("Communications Act"). There are a range of concerns and issues under PUHCA that fall within the responsibility and expertise of the Securities and Exchange Commission, the Federal Energy Regulatory Commission and state public utility authorities. These agencies are charged with regulating the rates and practices of electric and gas utilities subject to PUHCA. Included in the list of critical issues outside the purview of the FCC, for example, is the issue of the degree to which the investments of such entities should be confined.

The proposals of Congressman Boucher and Senator Riegle would exempt from PUHCA's requirements a registered holding company's acquisition of an interest in communications entities that provide telecommunications services or "related products." Under Congressman Boucher's proposal, such a holding company would be required to maintain communications entities as separate affiliates and comply with other safeguards mandated by the proposal. We interpret subsection (d) of Congressman Boucher's draft, however, to permit a utility or other associated company that is not a communications entity to engage in telecommunications "activities otherwise permitted by the law", which would include services that are integrally related to the utility's operation, such as the private networks some operate today.

The FCC would have jurisdiction over interstate telecommunications services offered by the communications entities affiliated with registered holding companies. Such entities normally would not be required to obtain prior approval from the FCC to commence offering interstate services, unless they required microwave licenses or other facilities authorizations to furnish their services. Furthermore, since the FCC does not regulate either the provision of information services or the sale of telecommunications equipment, entry into those activities also would not require prior FCC approval. State regulatory commissions presumably would have jurisdiction over the intrastate telecommunications offerings of such communications entities.

Firms affiliated with utilities are potential facilities-based competitors to telecommunications companies. Many electric and gas firms currently operate their own telecommunications transmission facilities, including microwave and fiber optic facilities, in order to provide a reliable, private communications network throughout their utility systems.Some companies use their facilities to furnish service to third parties on a private carriage basis. WilTel, for example, which is a subsidiary of a holding company that also owns subsidiaries involved in natural gas businesses, has become one of the largest interexchange common carriers in the country.

Electric and gas companies are well-positioned to become facilities-based competitors in telecommunications markets because of their extensive rights-of-way. Indeed, electric utilities already have made access to their rights-of-way available to interexchange common carriers for the purpose of installing fiber optic cables. According to a 1993 estimate prepared by the FCC's Industry Analysis Division, interexchange carriers have installed over 100,000 fiber miles (4,700 miles of cable) within electric utility rights-of-way (e.g., buried next to transmission towers) throughout the country.

Rights-of-way used for local utility distribution networks already present an opportunity for the deployment of telecommunications facilities in the context of the utility and its consumer. In the past few years, trade press articles have reported on plans by utilities to construct local telecommunications networks that link computers located in consumer households to a central computer operated by the utility. These networks would enable utilities and consumers to work together in developing and implementing demand-side management programs to conserve power, avoiding the need to construct new generating plants. Such a telecommunications network enables an electric utility to monitor consumer usage on a minute-by-minute basis and reward consumers for shifting their usage to off-peak periods.

Although the entry of firms affiliated with utilities into telecommunications markets potentially could benefit consumers, it also raises important concerns, especially the risk of improper cross-subsidization. Local utility services typically are provided to consumers on a monopoly basis. Adequate safeguards must be established to ensure that the costs of competitive telecommunications services are not recovered improperly from charges assessed to utility ratepayers. This risk of cross-subsidization is also presented by telecommunications services provided by utility affiliates that are not subject to PUHCA.

The draft language in both Congressman Boucher's and Senator Riegle's proposals recognize this risk. Congressman Boucher's draft bill would require the establishment of a separate communications affiliate, explicitly prohibiting cross-subsidization and proposing various other safeguards that are intended to deter such practices. Specifically, under the proposal, a holding company would be required to offer

telecommunications services through a separate entity that maintains its own books and accounts "which identify all transactions with such registered holding company and its other associate companies." Senator Riegle's draft bill also requires separate books, and would direct the FCC to prescribe regulations that prohibit anticompetitive behavior. Further, the draft language in both bills narrowly defines the circumstances under which a communications entity may engage in joint marketing arrangements with either a parent holding company or an associate company.

These measures appear to be patterned after safeguards that H.R. 3626 imposes on telephone companies that choose to establish a separate affiliate in order to offer video programming directly to subscribers in their service territories. There is, however, a significant difference. In the case of a telephone company's provision of video services, both the video affiliate and the telephone company would be subject to the FCC's jurisdiction. The FCC would have the ability to adopt and enforce regulations to prevent improper cross-subsidization applicable to both entities. In the case of a communications entity controlled by a registered holding company or associate company, however, the FCC would have direct jurisdiction only over the communications entity. The holding company and other associate companies would be subject to regulation by other Federal or State authorities. Enforcement of the cross-subsidization prohibition presents a greater degree of challenge than in a case in which a single agency has jurisdiction over all of the entities.

The language in Congressman Boucher's and Senator Riegle's drafts could be interpreted to require the FCC to regulate rates for services that typically are not subject to such regulation. As I noted, the FCC does not regulate the provision of either information services or telecommunications equipment. The markets for these services and products are competitive, and price regulation is not needed. The FCC also does not regulate the rates, terms and conditions governing the provision of intrastate telecommunications services. To the extent that many of the services that a local gas or electric utility may propose are intrastate services, the draft language would appear to preempt state jurisdiction over such services. Moreover, even if the services were interstate, since the communications entity would be a new entrant in markets in which there are already well-established competitors, such as facilities-based local exchange and long distance carriers, the FCC typically would treat the new competitor as a non-dominant carrier. Under those circumstances, the FCC would not regulate its rates or interstate services pursuant to the detailed requirements imposed upon a dominant carrier.

In summary, open competitive entry into telecommunications markets generally fosters lower prices, more diverse consumer choices, and technological innovation. I commend the subcommittees' examination of the potential risks and benefits of permitting registered holding companies under PUHCA to offer telecommunications services. I welcome the opportunity to answer any questions you might have.

Mr. MARKEY. And our final witness on this first panel is Mr. Ronald Russell, who is commissioner of the Michigan Public Utility Commission and chairman of the NARUC Electricity Committee. Welcome, sir.

STATEMENT OF RONALD E. RUSSELL, COMMISSIONER, MICHIGAN PUBLIC SERVICE COMMISSION AND CHAIRMAN, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS (NARUC) ELECTRICITY COMMITTEE

Mr. RUSSELL. Thank you, Mr. Chairman.

Let me start off by saying that NARUC would not go as far as Congressman Rayburn's reference to registered holding companies as "blood suckers", but we would also say that the potential for human nature to revert back to 1930 issues is real and should not be dismissed lightly.

It is my pleasure to be here today testifying on behalf of the National Association of Regulatory Utility Commissioners, NARUC. The NARUC has a great interest in the legislation which is the focus of this hearing, and having returned from our summer committee meetings this week, I can say that it created a great deal of discussion among members of the committee on electricity of NARUC, which I chair.

Our position on utility entry into the communications business is based on a resolution adopted by the NARUC executive committee on March 2, 1994. This resolution and the reasons for it are explained in my prepared testimony. In the interests of time, I will confine my oral remarks to respond to your direct questions.

Turning to the first question which you asked, whether multistate electric utilities would be effectively regulated if allowed into telecommunications and the impact of allowing such diversifications under protections afforded to utility ratepayers and shareholders under PUHCA, in our prepared statement we have reviewed the history of PUHCA diversification amendments in the Energy Policy Act, or EPAct, in which the exemptions for wholesale power generators was developed after long and thoughtful consideration and compared it to the exemption for foreign utility diversification which was added to the legislation in conference with little deliberation or consultation with State commissions. This history illustrates why full and careful consideration of registered holding company diversification into communications is imperative.

Given the recent enactment of the Energy Policy Act and subsequent Securities and Exchange Commission delays in issuing implementing regulations, it is too early to assess what the impact of these initial breaches into the 1935 "no diversification" policy of PUHCA will have on the registered holding companies and their consumers.

Accordingly, we submit that Congress must recognize that any further PUHCA exemptions it enacts to facilitate entry into communication markets will be cumulative with the EPAct initiatives. If there were to be a PUHCA exemption for ownership of communications affiliates, it should not be adopted as cavalierly as was the foreign utility exemption, but should complement and support rather than frustrate FERC regulations, which brings us to the second point in our resolution concerning regulatory parity, i.e., that Congress not preempt State regulation from providing appropriate consumer protections in the case of registered holding companies on the same basis as other electric utilities and new entrants. Again, EPAct's foreign utility exemption is on point. There, registered holding companies were able to obtain protection from State utility regulation unavailable to nonregistered holding companies whose diversification overseas was expressly contingent on affirmative State approval.

We strongly object to any communications affiliate exemption that enables registered holding companies to evade State regulatory requirements that other utilities must meet. This means, of course, that if a nonregistered holding company utility or exempt holding company must obtain its State's commission approval to diversify into communications services, and if it must comply with State-imposed consumer protections, then registered holding companies must not be relieved by Federal statute of their obligations to obtain similar approvals and comply with similar consumer protections.

We submit that such regulatory parity is not only fair but also entirely consistent with the constant registered holding company refrain that they only want to be treated like everyone else, i.e., that they want no PUHCA restriction placed on their diversifica-

tion activities that are not applicable to nonregistered holding companies.

Your second question asks us to comment on risks and benefits of allowing registered holding companies to establish PUHCA-exempt communications subsidiaries and our views on legislative proposals in the House and Senate that would allow registered holding companies to enter telecommunications.

Concerning the risk benefit part of your question, I believe that in dealing with registered systems, State commissions regulating these systems certainly must have the ability to balance these factors. Representatives of electric utilities have described many benefits to electric consumers that their provisions of communications may provide. However, legislation dealing with the entry of utility holding companies into telephony must recognize and address the fact that the complexity of their corporate structure can impose costs on utility ratepayers and may well cause jurisdictional problems between the SEC and FERC and State commissions of the sort we have recently had to confront.

In this regard, there is an essential regulatory tool that must be available to State commissions and the FERC if Congress decides to grant an exemption from PUHCA for registered systems affiliates so that they can provide telecommunications services. I am speaking about the ability of State commissions and the FERC to review the costs of nonpower affiliate transactions among subsidiaries of registered systems now threatened by the D.C. Circuit Court's decision in Ohio Power.

In our view, the Ohio Power legislation, one, must include coverage for States; two, should contain narrowly crafted grandfather provisions covering existing affiliate contracts which apply uniformly to all registered holding company systems; and, three, must preserve the authority of State and Federal rate-making agencies to review the continuing prudence of existing contracts.

In this regard, we are very pleased that there is progress on fixing Ohio Power and, more importantly, that there are elements in both the legislation reported last week by the Senate Energy Committee, which includes State coverage, and the legislation introduced in the House which has a narrow uniformly applicable grandfather provision that can be combined to meet these goals.

The third question, NARUC believes that the following elements are essential to protecting retail ratepayers who would be served by the PUHCA-exempt communications subsidiaries of registered holding companies.

One, State commissions and other parties must have the ability and means to challenge a registered systems certification before the SEC that it is eligible for PUHCA exemption.

Two, State and FERC access to books and records and accounts that identify all transactions of the registered system and its other associate companies must be assured.

Three, independent audit authority for State commissions to enable annual audits of transactions between the parent holding company and its communications entity must be protected.

Four, barring approval by a State commission, there should be a prohibition against registered systems including in electric and gas rates any costs associated with the issuance of any security for

the purpose of financing the acquisition or financing the ownership and operations of a communications entity.

And five, barring approval by State commission, there should be a prohibition against costs being included in electric and gas rates that are associated with establishing a communications entity.

There may well be additional protections that are necessary to protect consumers. However——

Mr. MARKEY. Mr. Russell, could I ask you to please summarize the remainder of your statement?

Mr. RUSSELL. In closing, the stakes are very high in this debate. While NARUC does not object per se to PUHCA amendments for communication diversification, it is crucially important that Congress give this matter careful consideration, particularly in light of the fundamental changes occurring in the electric industry. Thank you.

Mr. MARKEY. Thank you, Mr. Russell, very much.

[The prepared statement of Mr. Russell follows:]

STATEMENT OF RONALD E. RUSSELL, COMMISSIONER, MICHIGAN PUBLIC SERVICE COMMISSION

Mr. Chairmen and members of the subcommittees: It is my pleasure to be here today testifying on behalf of the National Association of Regulatory Utility Commissioners (NARUC).[1] The NARUC has a great interest in the legislation, which is the focus of this hearing, and having returned from our summer committee meetings this week, I can say that this legislation created a great deal of discussion among members of the Committee on Electricity of NARUC, which I chair.

In your letter of invitation, you have asked me to address three specific questions regarding legislation that would allow registered utility holding companies to provide telecommunications services to consumers by amending the Public Utility Holding Company Act. Before answering each of those, I would like to first give you some background on the general approach that NARUC has taken to this legislation.

Because the NARUC's members are involved with "both sides" of the utility/communications entry issue (in that they seek to protect the interests of consumers of both communications and energy services), the NARUC has a unique perspective on these issues.

Our position on utility entry into the communications business is based on a resolution adopted by the NARUC Executive Committee on March 2, 1994, which we have attached hereto. Although not flatly opposed to utility entry into new communications markets, the resolution makes two basic points:

—Congress should not lift Federal regulatory barriers to entry embodied in the Public Utility Holding Company Act (PUHCA) until it has "examine[d] fully and carefully the potential effects of allowing electric utilities to diversify into the provision of communications services to others;" and

—If following such careful examination, Congress determines that PUHCA amendments to facilitate utility entry are in the national interest, we strongly urge that such amendments not preempt or otherwise restrict State regulatory commissions "from providing appropriate consumer protections [for holding companies registered under PUHCA) on the same basis as other electric utilities and new entrants [into the communications market]."

The primary restrictions imposed by Federal law on electric utility entry into communications services are the provisions of PUHCA which prevent "registered holding companies" (RHC's) from using their holding company structures to diversify into businesses (such as certain telecommunications services) which are not func-

[1] The NARUC is a quasi-governmental nonprofit organization founded in 1889. Within its membership are the governmental bodies of the 50 States engaged in the economic and safety regulation of carriers and utilities. The mission of the NARUC is to serve the public interest by seeking to improve the quality and effectiveness of public regulation in America. More specifically, the NARUC contains the State officials charged with the duty of regulating the retail rates and services of electric and gas utilities, and telecommunications providers operating within their respective jurisdictions. These officials have the obligation under State law to assure the establishment and maintenance of energy and communications services as may be required by the public convenience and necessity, and to ensure that such services are provided at rates and conditions which are just, reasonable, and nondiscriminatory for all consumers.

tionally related to the provision of electric utility service. Other electric utilities which may be owned by holding companies (but are not required by PUHCA to be registered) or which are not part of a holding company structure at all face no similar Federal restrictions on their decisions to diversify into communications or any other line of business.[2]

As a result, the RHC's have argued that it is unfair that they face restrictions that their electric utility counterparts do not. Believing that they are in a strong position to accelerate the implementation of the National Information Infrastructure (NII) if freed from PUHCA to do so, the RHC's argue that their diversification activities should be subject to the same Federal regulatory treatment that apply to other potential utility entrants not required to register under PUHCA, i.e, none.

In response to these claims, the NARUC does not oppose RHC entry into telecommunications markets. Consistent with other testimony submitted to the Congress, particularly on S. 1822, our resolution does not support a ban on any party's entry into the communications market place. Provided that necessary safeguards are in place to protect consumers and ensure fair competition, we do not object to RHC's or any other utility—gas, water or non-RHC electric company—seeking to diversify into communications services.

I would like now to turn to the first question in which you asked whether multistate electric utilities would be effectively regulated if allowed into telecommunications, and the impact of allowing such diversification on the protections afforded to utility ratepayers and shareholders under PUHCA.

Members of the Subcommittee on Telecommunications and Finance have considerable experience with issues raised by large multistate providers of monopoly services in communications markets, and it should come as no surprise that questions of cross-subsidy, self-dealing, and conditions for fair competition impact the diversification activities and operations of RHC's as well. Indeed, the very basis for the enactment of PUHCA in 1935 was to provide a Federal check on abuses of the holding company structure through the flat prohibition against RHC diversification into non-related lines of business. At that time, Congress determined that regulatory tools were not sufficient to police RHC diversification activities, so they should simply be prohibited.

In the 1992 Energy Policy Act (EPAct), Congress amended PUHCA to allow RHC's to diversify into two lines of business related in some ways to their core electric businesses: independent power production and ownership of foreign utilities.[3] Importantly, these two PUHCA amendments had very different legislative histories. The amendment to allow RHC ownership of independent power producers (called "exempt wholesale generators" or "EWG's" in the legislation) was the product of long and careful consideration in both House and Senate committees. Provisions were included: (1) to protect against self-dealing and cross-subsidies between RHC's and any EWG's they might own; (2) to ensure that transactions particularly subject to possible abuses (such as spin-offs of rate regulated assets or ownership of so-called "hybrid" EWG's) were conditioned upon State regulatory approval; and (3) to direct the Securities and Exchange Commission (the jurisdictional agency under PUHCA) to issue regulations aimed at protecting the financial integrity of RHC's that owned EWG's.

By contrast, the EPAct provision allowing RHC diversification into foreign utility ownership was a last-minute amendment added to the legislation at conference with neither full committee consideration in either House, nor public hearings. With respect to the ability of State commissions to approve foreign utility diversification by affiliates of utilities operating within their respective borders, RHC's are actually better off than other utilities: non-RHC utilities cannot obtain the PUHCA exemption necessary to diversify into foreign utility ownership unless their State commissions certify that they have adequate legal authority and resources to protect utility consumers. This certification process provides each State commission a form of veto over non-RHC investment into risky foreign markets. In the case of RHC's, however, the SEC can authorize foreign utility diversification over the objections of the State commissions regulating the RHC's operating electric utilities. Here, the States have only the right to submit recommendations to the SEC, but no right to take action on their own if they feel that the interests of utility consumers are at risk.

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[2] As a practical matter, utilities will most likely use a holding company structure to carry out their diversification strategies. Accordingly, utility entry into communications markets will be conducted through a corporate entity affiliated with a utility.

[3] In Title II of the Public Utility Regulatory Policies Act of 1978 (PURPA) , Congress had previously exempted the owners of "qualifying facilities" or "QF's" (i.e., cogenerators and small power producers) from PUHCA. Under PURPA and implementing regulations issued by the Federal Energy Regulatory Commission, a utility may not own more than 50 percent of a QF.

We recount this history for two purposes: to illustrate why full and careful consideration of RHC diversification into communications is imperative, and to highlight the fact that RHC diversification is already underway. However, given the recent enactment of EPAct and subsequent SEC delays in issuing implementing regulations, it is too early to assess what the impact of these initial breaches in the "no diversification" policy of PUHCA will have on the RHC's and their consumers. Accordingly, we submit that Congress must recognize that any further PUHCA exemptions it enacts to facilitate entry into communications markets will be cumulative with the EPAct initiatives. In other words, we are deeply concerned that in its piecemeal adoption of PUHCA amendments on a line-of-business by line-of-business basis, Congress will lose sight of the cumulative effect that the resulting diversifications will have on RHC's, and most importantly, the customers of their operating utilities. Again, our point is that if there is to be a PUHCA exemption for ownership of communications affiliates, it should not be adopted as cavalierly as was the foreign utility exemption.

Which brings us to the second point in our resolution concerning regulatory parity, i.e., that Congress "not preempt State regulation from providing appropriate consumer protections [in the case of RHC's] on the same basis as other electric utilities and new entrants." Again, EPAct's foreign utility provision is on point. There, RHC's were able to obtain protection from State utility regulation unavailable to non-RHC's, whose diversification overseas was expressly contingent on affirmative State approval. We strongly object to a communications affiliate exemption that enables RHC's to evade State regulatory requirements that other utilities must meet. This means, of course, that if a non-RHC utility or exempt holding company must obtain its State commission(s)' approval to diversify into communications services, and if it must comply with State-imposed consumer protections, then RHC's must not be relieved by Federal statute of their obligations to obtain similar approvals and comply with similar consumer protections. We submit that such regulatory parity is not only fair, but also entirely consistent with the constant RHC refrain that they only want to be treated like everyone else, i.e., that they want no PUHCA restrictions placed on their diversification activities that are not applicable to non-RHC's.

Your second question asks us to comment on risks and benefits of allowing RHC's to establish PUHCA-exempt communications subsidiaries and our views on legislative proposals in the House and in the Senate that would allow RHC's to enter telecommunications.

Concerning the risk/benefit part of your question, I believe that in dealing with registered systems that State commissions regulating these systems certainly must have the ability to balance these factors. Representatives of electric utilities have described the many benefits to electric consumers that their provision of communications can provide: more efficient operations through advanced metering and real-time pricing and increased conservation of utility resources through sophisticated demand side management devices—benefits that many State commissions would want the opportunity to consider. Conversely, however, legislation dealing with the entry of utility holding companies must recognize and address the fact that the complexity of their corporate structure can impose costs on utility ratepayers, and may well cause jurisdictional problems between the SEC, FERC and State commissions of the sort we have recently had to confront.

In answering the second part of your question, we have not yet had the opportunity to fully address the specifics of the recently issued proposals by Congressman Boucher and Senator Riegle. While we intend to provide you our views on these proposals as soon as we can, I would like to indicate to you what the NARUC believes should be addressed by this legislation.

First, the NARUC believes that there is an essential regulatory tool that must be available to State commissions if Congress decides to grant an exemption from PUHCA for registered systems' affiliates so that they can provide telecommunications services. I am speaking about the ability of State commissions to review the costs of non-power affiliate transactions among subsidiaries of registered systems. The NARUC has already made its views known on this topic when Chairman Glazer of the Ohio Public Utilities Commission testified before the Subcommittee on Energy and Power this past May. The main point of this testimony is that Congress must enact legislation to overturn the D.C. Circuit Court's decision in *Ohio Power*.

In our view, the court's decision in *Ohio Power* has created a regulatory gap that clearly threatens State regulation concerning the costs of interaffiliate transactions recovered in retail rates. By removing FERC jurisdiction and gravely threatening State authority, *Ohio Power* creates a double-standard of regulation in which the affiliate transactions of registered holding companies receive less regulatory scrutiny than non-registered systems and thereby places ratepayers of registered sys-

tems at greater risk. Accordingly, we would urge your subcommittees to enact as part of any legislation allowing entry of registered systems into telecommunications, provisions that would overturn the *Ohio Power* decision by restoring FERC authority and clarifying State regulatory authority to review the costs of interaffiliate transactions. Whether this is done by an amendment to the Public Utility Holding Company Act (PUHCA) or to the Federal Power Act is less important than that all the costs of all non-power transactions between holding company affiliates be subject to review by the appropriate State and Federal ratemaking authority. Accordingly, the NARUC does not support the approach taken in H.R. 4645, which would overturn the Ohio Power decision for FERC but leaves State regulatory authority in this area vulnerable to attack. Further, any "grandfather" provisions covering existing affiliate contracts must be narrowly crafted, apply uniformly to all registered holding company systems, and preserve the authority of State and Federal ratemaking agencies to review the continuing prudence of existing contracts.

The NARUC believes that the following elements are essential to protecting retail ratepayers who would be served by the PUHCA-exempt communication subsidiaries of RHC's:

(1) State commissions and other parties must have the ability and means to challenge a registered system's certification before the SEC that it is eligible for exemption from PUHCA;

(2) State and FERC access to books, records, and accounts that identify all transactions of the registered system and its other associate companies must be assured;

(3) Independent audit authority for State commissions to enable annual audits of transactions between the parent holding company and its communications entity must be protected;

(4) Barring approval by a State commission, there should be a prohibition against a registered system including in electric and gas rates any costs associated with the issuance of any security for the purpose of financing the acquisition or financing the ownership and operation of a communications entity; and

(5) Barring approval by a State commission, there should be a prohibition against costs being included in electric and gas rates that are associated with establishing an communications entity.

All of the above elements are contained in the staff draft of July 15th that was issued by the Senate Banking Committee. There may well be additional protections that are necessary to protect consumers. However, we believe these are good starting points and we are willing to work with your subcommittees on crafting additional protections.

In closing, we submit that the stakes are very high in this debate. While we do not object per se to a PUHCA amendment for communications diversification, it is crucially important that the Congress give this matter careful consideration, particularly in light of the fundamental changes occurring in the electric utility industry as a result of EPAct. Obviously, the *Ohio Power* issue must be resolved consistent with the restoration of State and Federal authority to regulate the passthrough in rates of the costs RHC affiliate contracts. Under no circumstances should such a PUHCA amendment preempt the authority or ability of State regulators to take all necessary and appropriate actions to protect consumers of all electric utility subsidiaries.

RESOLUTION ON PROPOSALS TO AMEND THE "NATIONAL COMMUNICATIONS COMPETITION AND INFRASTRUCTURE ACT" (H.R. 3636) REGARDING THE ENTRY OF ELECTRIC UTILITIES INTO THE TELECOMMUNICATIONS INDUSTRY

WHEREAS, NARUC supports the overall objectives of H.R. 3636, to open markets to competition and to preserve universal service, albeit with strong preference for amendments to rebalance Federal/State jurisdictional responsibilities; and

WHEREAS, Under current law some electric utilities (which are not public utility holding companies and electric utilities which have received exemption from registration under the Public Utility Holding Company Act (PUHCA)) are able to enter the communications marketplace without Securities and Exchange Commission oversight under PUHCA; and

WHEREAS, The electric utilities which are registered holding companies under the PUHCA seek parity in access to competing in the communications market; and

WHEREAS, The electric utility companies have created internal telecommunications networks essential for the control of their electric systems and are expanding the use of those networks for such purposes, in addition to demand-side management purposes, and seek to make their reserve telecommunications capacity available to others; and

WHEREAS, Congress has already provided registered holding companies with significant exemption from PUHCA to engage in competitive activities, and the effects of those exemptions on captive ratepayers are yet to be assessed; and

WHEREAS, Abuses from electric utility involvement in the communications industry are potentially as problematic for exempt holding companies as for registereds; and

WHEREAS, Concerns about abuses such as cross-subsidies and excessive risks and charges to captive ratepayers of regulated utilities, especially those which are part of a complex holding company structure, are still warranted; and

WHEREAS, Although Congress made significant changes to the structure of the electric industry in the Energy Policy Act, it has yet to comprehensively review and resolve regulatory gaps and jurisdictional incongruities; now, therefore, be it

RESOLVED, That the Executive Committee of the National Association of Regulatory Utility Commissioners, convened at its 1994 Winter Meetings in Washington, DC, urges Congress, before it provides any further statutory exemptions from PUHCA for registered or exempt holding companies, to examine fully and carefully the potential effects of allowing electric utilities to diversify into the provision of communications services to others; and be it further

RESOLVED, That if Congress decides to further amend PUHCA in conjunction with telecommunications legislation or exempt the registered holding companies from PUHCA with regard to telecommunications activities, that it not preempt State regulation from providing appropriate consumer protections on the same basis as other electric utilities and new entrants.

Sponsored by the Committee on Electricity
Adopted March 2, 1994
Reported NARUC Bulletin, No. 11-1994, pp. 9-10

Mr. MARKEY. Let me begin by recognizing Chairman Sharp for a round of questions.

Mr. SHARP. Thank you very much, Mr. Chairman. I will try to be fairly brief.

I wanted to return to Mr. Russell who was just testifying on what NARUC hopes would be retained for States and I want to be as clear as I can just reading through your list here.

Number one means that at the time that the SEC grants the exemption, if they should, you simply expect to be able to be before them to—you say to challenge it. I guess what my question is, each State commission does not expect to have absolute conformity; in other words, they would have a veto. Under your theory, they simply must have guaranteed ability to be heard and to get at documents and whatnot in this process. Is that correct?

Mr. RUSSELL. That is correct, Congressman. Our concern is that in the past, SEC has not had very many hearings to date, hearings in the light of what the FERC would have or what State commissions would have. And so our concern was that if we are going to submit papers before the SEC and they rule on that paper issuance, that would be of a concern to us, but we need a forum that we would be allowed to present our cases, present our issues for the SEC's deliberation but in a structure similar to that of the FERC and State commissions.

Mr. SHARP. I mean, in our Ohio Power hearing, that was one of our concerns, was the processes of the SEC, which are focused historically on other kinds of questions, are different than before FERC and it was one of the reasons we thought it was important, among several, to get back to the older structure that we had all been used to in the division of labor on this issue.

I just want to be clear, then, because one of the natural concerns of holding companies is that obviously since they operate in a multistate arena, you can have—if you have five States, you could have four who were in agreement and the one, the fifth, says no

and then there is no action or activity possible. So I think it is important that—I am trying to be clear that you are not advocating—your organization is not advocating an absolute State veto here, they just want guaranteed State participation; is that correct?

Mr. RUSSELL. That is correct, Congressman. What our concern is, like what has been raised under regional transmission groups, give the States the ability to come together and discuss and debate the issues that would stem from this particular type of diversification. And then once we have come together as States, which I believe that the competition in the industry will require States to do, that States will step up to that issue, but still, once they have done that, they still need a forum to present their concerns to a decisionmaker.

Mr. SHARP. Well, I do think it is important here perhaps for this record because you and others testifying on our electricity hearings as well as our OPCO hearings have made it very clear that the States understand with some pain in some instances that the new world of electricity is going to require new kinds of activities on a regional basis and better coordination with the Federal FERC, and both States and the FERC are going to have to work hard to make that work in order for us to maintain an effective regulatory system and promote the goals of competition.

Let me quickly ask Mr. Roberts, then I will finish, Mr. Chairman, whether the SEC feels that it is equipped to review the kind of State concerns that they have or are you going to have to change your internal processes and whatnot in the process?

Mr. ROBERTS. So far as telecommunications are concerned, the last draft of Congressman Boucher's amendment that I received contained just a notice process, thus the SEC was not really evaluating the ability of a registered to engage in telecommunications operations; they just noticed us.

I understand that the legislation in the Senate does contain an application process. I personally would prefer an application process. However, the way the application process works, at least according to the latest Senate draft that I reviewed, was that the SEC would be required after an application process to make a determination as to whether a person is a communications entity according to a definition contained in the Federal Communications Act. I would prefer that the FCC make this determination rather than the SEC and that the FCC be engaged in the application process. Then the FCC would notice us that the application has been granted since this determination appears to lie more clearly within the expertise of the FCC rather than the SEC.

Mr. SHARP. What you raise here is one of the central questions is how we divide the labor here. Ms. Moler, I didn't know if you had a comment on this; then I will quit.

Ms. MOLER. No, sir, I do not.

Mr. SHARP. Thank you, Mr. Chairman.

Mr. MARKEY. The gentleman's time has expired. The Chair will recognize the gentleman from Virginia.

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

Mr. Roberts, you noted in your testimony that participation by the registered holding companies in telecommunications markets

might present some risks that would not have been encountered by the registereds in their other nonutility functions.

Can you give us some examples of what those risks would be?

Mr. ROBERTS. PUHCA does now restrict the activities of the registered utility holding companies. If one reviews the experience of exempt holding companies that engaged in diversification activities in the 1980's, the finding would be that the experience wasn't altogether pleasant. Real estate, insurance, drug stores come to mind. Those are activities that were not within their expertise as such.

Of course, diversification was painful for most of Corporate America in the 1980's. My point simply is that when a registered engages in activities unrelated to the core utility operations, one is never certain what the experience may be. I suppose the best protection would be some financial limitation on the ability of registered holding companies to invest in telecommunications activities.

Mr. BOUCHER. You are not then assigning some large list of special risks that would be encountered with respect to communications services as distinct from other kinds of nonutility ventures?

Mr. ROBERTS. No, just general nonutility ventures, that is correct.

Mr. BOUCHER. I realize you are not taking a position at the moment with respect to whether the registereds ought to be able to offer communications services. You have a study under way and are looking at some other possible changes with respect to PUHCA. But I noted you also said you would be willing to express some views with respect to the particular subject, so I am going to ask you to do that.

Mr. ROBERTS. I am also prepared to express my personal views.

Mr. BOUCHER. I noticed that, Mr. Roberts, and it is a welcome characteristic.

Let me ask you this: Do you generally think that we will be able to structure safeguards that can protect consumers when the registereds offer telecommunications services?

Mr. ROBERTS. Certainly safeguards could be constructed.

Mr. BOUCHER. Well, I am pleased to hear that. I have that same view and I want to ask that same question of Mr. Katz.

Mr. Katz, I noted in your testimony that you indicated that because there would be a greater number of agencies involved in regulation when the registereds offer communications services as distinct from utility-related kinds of ventures, that in your opinion there might be some greater challenge posed.

Tell me, now, is that a challenge we can overcome? Can we in fact structure the safeguards that are necessary to protect consumers from cross-subsidies given the fact that the FCC will be regulating the communications side and other agencies will be exercising their traditional function with regard to protecting electricity consumers?

Mr. KATZ. I believe it is a challenge that can be overcome but there will be a considerable amount of effort that will have to be put in by all the agencies involved to ensure that they cooperate and to ensure that we have a comprehensive overall package that fits together and makes sense.

We have to ensure that there are no gaps, that each regulatory agency has sufficient authority and the resources so that it can get the job done, so that we don't put businesses in the position of having to deal with contradictory regulations. So I believe that certainly it is possible that the agencies are up to it, but I don't want to minimize the size of the task ahead in doing that.

Mr. BOUCHER. All right. Mr. Chairman, that is all the questions I have. Thank you very much.

Mr. MARKEY. The gentleman's time has expired and the Chair will recognize himself.

Let me ask you, Commissioner Roberts, you have laid out some of the risks that are associated with allowing registered holding companies to get into telecommunications, and you list cross-subsidization, self-dealing, and failed diversifications.

Given these risks and given the cumulative impact of granting additional exemptions from PUHCA on the SEC's ability to carry out its regulatory mission and given the fact that the SEC recently has undertaken a wide-ranging review of PUHCA, would the SEC prefer that Congress not legislate in this area at this present time?

Mr. ROBERTS. Yes.

Mr. MARKEY. Commissioner Russell, your testimony states that the cumulative effect of a line-of-business-by-line-of-business approach to registered utility diversification could have serious negative consequences for the ability of Federal and State regulators to effectively regulate great multistate utility holding companies.

In light of the fact that we still can't anticipate the full impact of the PUHCA exemptions in the 1992 energy bill, which you have already mentioned, on the utility industry, would NARUC prefer that Congress hold off on legislating in this area at this time?

Mr. RUSSELL. To the extent that Congress through its deliberations can completely go through the analysis of how the effect of diversification can affect regulations and to devise some consumer protections, but for the consumer protections I would advise that Congress not allow that to go forward.

Mr. MARKEY. You are saying, essentially, if we can't go through a detailed analysis of all the implications in the next 6 weeks of how it would affect the electric utility industry that we should not legislate at this time?

Mr. RUSSELL. That may be difficult, but if the types of consumer protections that were at least initiated under the Energy Policy Act with foreign utility diversification were included into the legislation as presented for diversification, that would be a start. I don't go so far as to say that will be enough.

Mr. MARKEY. You said it was an inadequate start, did you not, in your written testimony?

Mr. RUSSELL. That is correct.

Mr. SHARP. I think the gentleman misspoke. I thought you didn't like the foreign model. What you were talking about, weren't you, was the EWG model, domestic model which is what you prefer, not the foreign model?

Mr. RUSSELL. Two pieces. One, there were two changes that were made to the Energy Policy Act. One was the creation of EWG's and the second was to allow utilities into foreign markets. The concerns that are being raised by NARUC are that States at least have some

input into devising what they believe are necessary consumer protections to allow those transactions to go forward.

In the diversification area, in the foreign utility diversification area, the provisions that have been put in place for State commissions was a prior approval. Before a utility subject to the jurisdiction of a State could be involved into foreign diversification, State commissions had to have an affirmative action. What we are asking is something similar.

Mr. MARKEY. I understand.

Chairman Moler, while you say you are not opposed to registered utility diversification in principle, you would oppose legislation unless there are adequate safeguards that permit FERC and State regulators to protect ratepayers against self-dealing and cross-subsidization.

In order to ensure this, you say we must overturn the Ohio Power decision and ensure that no new limitations are imposed on FERC's ability to review cost allocations. If these two conditions are not met, would you recommend that we not allow the registereds into telecommunications?

Ms. MOLER. Yes.

Mr. MARKEY. Thank you.

Mr. Katz, you indicate that the FCC generally supports allowing utilities to compete in telecommunications but that the entry of registered utility holding companies raises special concerns and issues, some of which fall within the responsibility of the SEC and the FERC.

Would you agree that if those concerns cannot be resolved in a way that ensures utility consumers and investors are afforded full protections that we should not legislate in this area?

Mr. KATZ. The FCC does not have an opinion regarding whether it is in favor of the legislation. I can say that with regard to the entry itself, as opposed to the legislation, that we would be concerned if they had the right to enter without our thinking that adequate safeguards were in place to ensure that there was no cross-subsidization.

Mr. MARKEY. You are concerned about the limits of your own jurisdiction and your ability to enforce at this juncture, though?

Mr. KATZ. That is correct.

Mr. MARKEY. All right.

Mr. Katz, your testimony again notes that in both Mr. Boucher's and Senator Riegle's proposals the FCC is granted responsibilities to prevent cross-subsidization, but you also note that, unlike telephone companies that diversify into video services where the FCC has jurisdiction over both the video affiliate and the phone company, with registered utility communications affiliates, the FCC will only have jurisdiction over the communications company, not the parent company or the other affiliated utility operating companies. The SEC, FERC, and the States each retain jurisdiction over various aspects of the utility holding company system's activities.

How does this four-way regulatory split affect the ability to effectively police any cross-subsidization or self-serving restrictions—self-dealing restrictions?

Mr. KATZ. I think the four-way split makes it vital that the agencies involved develop mechanisms for working together to ensure

that they are in fact working together and that we will have to examine the processes used by the different agencies, the accounting standards, and try to come up with some sort of if not common procedures, at least procedures that are integrated.

So I don't believe that it stops us from being able to do the job, but it does mean that there is a lot we will have to do to make sure we are working together.

Mr. MARKEY. OK. You understand that even as we have this discussion we are still in the process of trying to construct in H.R. 3636 the safeguards that would exist—that would have to be put in place—between the sloshover from telephone ratepayers' bills and the desire of a telephone company or a cable company to get into another line of business. That, in and of itself, has been an extremely complex and difficult set of safeguards to put in place and these safeguards would come exclusively under your jurisdiction. Even with these precautions, we have some concerns about the cross-subsidization that could exist.

As we enter this field, we very easily could have a ratepayer, just say theoretically in Massachusetts, an electric ratepayer in Massachusetts subsidizing the installation of video services in New Hampshire for the business opportunity of the multistate utility and having the PUC of New Hampshire effectively blocking full scrutiny of this drain on the ratepayer of Massachusetts or Maine or New Hampshire or Vermont, or God knows what would go on.

And it is not that we don't have good relations with our neighboring States, but I don't think the people in Massachusetts necessarily want to trust the PC of New Hampshire, if you understand what I mean, with regard to the rates that we would be paying any more than, let's be honest, the ratepayers of Texas might not trust the Louisiana PUC in regard to what they might determine to be a proper rate.

So each of us as we look at the neighboring State might not feel as comfortable with how they might view any of the checks and balances that might be built in to protect the ratepayers of another State if the primary benefits of expenditure were going to the other State. And it gets quite complex quite quickly, even as we realize that all of you might be able to sit down in a room, but we are not sure about some unknown parties who are out there.

What about the prospect of incremental pricing by electric utilities in the new build-out of lines? Their marginal costs might be one cent to provide telephone services. Should we be worried about the local telephone company's ability to compete? Is proper cost allocation possible?

Mr. Katz, do you understand the problem here?

Mr. KATZ. We understand the question. And a good portion——

Mr. MARKEY. This is an important public policy question here in terms of implications of moving down this line with what the electric utility might be able to accomplish without proper cost allocation.

Mr. KATZ. We certainly—the Commission certainly has recognized the need in a variety of areas for proper cost allocation on similar issues that come before us with the fact that local exchange companies are moving into full service networks that can offer

voice and video services and those issues of cost allocation are quite prominent there.

And as I said, it would be a considerable effort that would have to go into designing proper safeguards. It is something we have done in other areas and we are continuing to do. We would have to look at that in order to do it. You do touch on an important point. We would have to have the authority to get the information that we need. That would mean looking at the costs of the communications entity and in the case where it is jointly using facilities with the public utility, I believe the Commission would also have to get into the business of looking at the costs of the utility to ensure that there was a proper allocation being made.

Mr. MARKEY. All right. Mr. Russell.

Mr. RUSSELL. Mr. Chairman, an example of your question that was just posed was addressed by the Michigan Commission in telephony a couple of years back where we had a telephone company who was providing local basic service and was competing with another company who was also providing local basic service in the same franchise area.

And the issue that was before the Michigan Commission was whether or not embedded cost pricing should be used or marginal cost pricing should be used in order to allow for competition. If you use embedded cost pricing, you may stifle competition, but you may increase competition and you still may not get low costs. If you use marginal cost pricing, you may get low cost but you may not get competition. The balance that is being struck or needs to be struck is to answer in balance just that question, and I am suggesting that the PUC's are the ones who have historically been able to try to balance those types of issues, and I would hope that they would not be frustrated from finishing that.

Mr. MARKEY. I am very sensitive to that historic role that you have played and I think it is important that we be sensitive to it, while also trying to be sensitive to the fact that I don't want Mr. Katz and the Commission to have to turn into a mini-Securities and Exchange Commission trying to take on a function that is far different than any it has ever had to assume in the past. So the proper allocation of responsibilities under any scheme that seeks to modify PUHCA is I think amongst the most difficult tasks.

Let me recognize the gentleman from Idaho, Mr. Crapo.

Mr. CRAPO. Thank you, Mr. Chairman.

Commissioner Roberts, as you know, section 11 of PUHCA limits a registered holding company to ownership of a single integrated public utility system and such other businesses as are reasonably incidental or economically necessary or appropriate to the operations of such an integrated public utility system.

And the SEC as I understand it has generally interpreted this provision to require a functional relationship between the nonutility businesses owned by a registered holding company and its core utility operations. Would you agree that the functional relationship test fundamentally assumes that registered holding company systems have a monopoly on electric generation and that electric service might be impaired if nonutility investment was unsuccessful? Is that the basis for that?

Mr. ROBERTS. I am inclined to agree with that statement.

Mr. CRAPO. Last week, both at the hearings here and at the SEC roundtable, all of us heard industry participants describing a new era of competition in the wholesale electric generation and transmission. And at our hearings here, we also heard about plans in some States to open up the retail electric market to competition.

Do you believe that the assumption that registered holding companies have a monopoly on electric power market is at odds with the current state of competition in that market?

Mr. ROBERTS. Not today in my opinion. Maybe in the near future, but not today.

Mr. CRAPO. So a lot of the talk we are hearing is preliminary about where the market is heading?

Mr. ROBERTS. I agree with that statement too, Congressman.

Mr. CRAPO. OK. Given the SEC's implementation of the Securities Act of 1933 and the Securities Exchange Act of 1934 and the general sophistication of today's capital markets, is there a public policy merit to the additional investor protection requirements of PUHCA?

I guess the question is, is there a need in today's market environment for additional protection for utility investors as opposed to other types of investors?

Mr. ROBERTS. Is there a need for Federal oversight of utility holding companies? Of course, that question is one of the questions that is involved in the current SEC study and it is linked to the issue of repeal question. There was quite a bit of support for repeal of PUHCA expressed at our roundtable. Obviously, the SEC has not completed its study.

Historically, the SEC has supported a repeal of PUHCA for some 15 years. For 15 years, Congress never agreed to such repeal and repeal did not occur, but certainly this is one of the issues that is under study by the SEC. The current SEC has not developed a position on that issue yet.

Mr. CRAPO. All right.

Let me turn to Chairman Moler for just a moment. It is my understanding that draft legislation prepared by Senator Riegle's office reflects a compromise that was approved by the registered holding companies, the SEC, FERC, and the Senate Energy and Natural Resources Committee.

Are you familiar with that? Am I correct that there was a compromise there that was agreed to?

Ms. MOLER. Senator Riegle's staff was working on a compromise approach. We, frankly, had some problems with the limitation that they would have imposed on our ability to allocate costs. Senate Energy then had a markup on a Bumpers' bill. Senator Riegle's draft became the basis for a change in Senator Bumpers' legislation.

We worked with the registered companies and with the appropriate committee staff and came up with something that was reported out of the Senate Energy Committee that we could live with on the cost allocation issue. As I said in my prepared remarks for the subcommittees this morning, we would like to limit the damage to our cost allocation authority as much as we can.

Mr. CRAPO. I think you may have answered my next question, then. I was going to get into whether FERC still supports the Rie-

gle compromise, and if I understand you correctly, you can live with it but you have the concerns that you have expressed.

Ms. MOLER. Yes, and there are also some State concerns as well, as I understand it.

Mr. CRAPO. In your opinion, does the Riegle draft fully protect the electric consumers against cross-subsidization by public utility companies or of the associate companies?

Ms. MOLER. The Riegle draft did not, no, sir, because of the allocation issue. The changes that were made at the Senate Energy Committee helped.

Mr. CRAPO. All right. Thank you very much. And I just have one further question for Commissioner Russell.

Does NARUC have a position regarding the continued different treatment of registered holding companies and exempt holding companies in their ability to invest in nonutility business such as the provision of telecommunications services?

Mr. RUSSELL. Do we have an opposition to it?

Mr. CRAPO. Just a position, a stated firm position.

Mr. RUSSELL. We do not object to registered holding companies in telephony to the extent that there are safeguards included in the legislation that allows review.

Mr. CRAPO. So there is not a formal opposition, you are waiting to see what the proposal is?

Mr. RUSSELL. That is correct.

Mr. CRAPO. Thank you very much.

Mr. MARKEY. The gentleman's time has expired. The gentleman from Indiana.

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

Ms. Moler, if I could ask you, you expressed that you were not totally satisfied with the way the compromises have gone in the Senate and I don't—you don't have to give us details on what they are doing, but rather what is it—where do you think we should have our attention focused to help protect the electric ratepayer, for example?

Ms. MOLER. I agree with your opening remarks that fixing the Ohio Power decision is an essential prerequisite to protecting ratepayers. I also believe that we need to have authority to look at cost allocations even if they have already been reviewed by the SEC. We have different procedures. We have a different focus. It is a ratepayer protection focus.

I understand the registered holding companies do not like serving two masters, and that is the tension that we were trying to address in our discussions during the Senate Energy and Natural Resources Committee's markup. Fundamentally, the Ohio Power problem is critical in our view.

Mr. SHARP. Let me ask you, is there a way to gain some uniformity among the three agencies in their approach—or is that just so beyond possibility—that one can help mitigate the notion of serving three masters, because essentially we have four different entities for responsibilities of different aspects of different parts of businesses in different places.

What I think the central problem we are trying to get at here is how to divide the labor and coordinate the activity among four different regulating entities—or more than four, one being the

States. And I think that is our biggest challenge in the weeks ahead here on how to do that.

Ms. MOLER. Mr. Chairman, I agree. Historically, there have been few conflicts between the SEC and the FERC on cost allocation issues, for example. With this brave new world that we are talking about entering into, the issues become much more difficult and more complex. Also, historically, we have done our thing, the SEC has done its thing. The FCC we don't even talk to.

And Mr. Katz' comments on the subject are apt. We will need better coordination. Clearly, we would expect that to come about by parties' participation in our process and a general awareness of what is going on, but we have not had to coordinate in prior years. Certainly we could. If this legislation were enacted, we could set up a group of staff to coordinate activities, but we have different statutory mandates, so it is difficult.

Mr. SHARP. Mr. Katz or Mr. Roberts, do you wish to comment on that problem? Do you see any specific actions we can take to help rectify that if we are about to legislate?

Mr. KATZ. Let me start by just saying that I agree there would be difficulties there and to some extent we don't know the size of them until we learn about one another's process and procedures and the cost allocation methods. Certainly to the extent that those differences we find are driven by statute, harmonizing the statutes would go a long way towards making things work more smoothly.

It is also at this point in my mind an open question of how much conflict or how much a need there will be to harmonize our cost allocations procedures because of lack of communication in the past. I don't know——

Mr. SHARP. You don't know whether it is small or large is the point?

Mr. KATZ. That is correct.

Mr. SHARP. Mr. Roberts, do you have a comment on that?

Mr. ROBERTS. The SEC has historically enjoyed an excellent relationship with the FERC. I certainly agree with Chairman Moler's statements on that point. I suspect that this strong relationship will continue. It is imperative for all of us on the regulatory end to try to coordinate our regulatory approach so that it is cost-effective and efficient.

The SEC to my knowledge has not worked very often with the FCC. That would be a new experience for us. A brave new world, as you put it. We look forward to the opportunity to do so, however.

Mr. SHARP. Mr. Roberts, does the SEC object to the notion of FERC reviewing its or the SEC's PUHCA cost allocations?

Mr. ROBERTS. You mean in terms of the rebuttable presumption standard?

Mr. SHARP. In terms of what they would do under the Federal Power Act, how they would treat it differently.

Mr. ROBERTS. I am not sure precisely where you are headed, Mr. Chairman. In terms of the Ohio Power concern, the legislation that I have reviewed contains a rebuttable presumption standard. That appears to me to be a reasonable approach. Again, the SEC is now attempting to resolve most, if not all, of the Ohio Power judicial concerns administratively.

Mr. SHARP. Is that a reasonable approach, the rebuttable presumption, Ms. Moler?

Ms. MOLER. A rebuttable presumption will work but a rebuttable presumption does imply that we could do something different.

Mr. SHARP. And that is the key?

Ms. MOLER. Yes.

Mr. SHARP. You must do that?

Ms. MOLER. Whether it is "substantial deference" or whatever kind of standard you want to adopt, we feel it is critical that we be able to look at the cost allocations and the cross-subsidy issue from a ratepayer perspective. So a rebuttable presumption will work, but we then have to have the tool to do something if we find something is wrong and fix it.

Mr. SHARP. Well, let me say, Mr. Chairman, I think that we have a lot of work to do on this potential regulatory gap, regulatory coordination issue, and I would hope that since the political forces are driving to a decision on this, that may all collapse of course, but there is—I would strongly urge that we would seek to bring about some coordinated discussion among some of the agency personnel on this, because I think it is unprecedented to have this many agencies——

Mr. MARKEY. If the gentleman would yield, we could just extend out the table there if we wanted to. Because these three plus Mr. Russell by definition would have to be joined by at least one other person if a Michigan utility decided to spread over into Illinois or Wisconsin. So we have to have at least one other seat and maybe another seat, maybe another seat depending on how many States want to get into it.

And then you, Mr. Katz, and Mr. Roberts, and you, Ms. Moler, plus Mr. Russell and however many other chairs we would to have to sit around a table, I guess, would try to figure out how you were going to deal with the interLATA—the interactive service which Public Power of Michigan wanted to provide to the campus of the University of Wisconsin and what the proper flow of responsibility should be in terms of who shares which costs.

And I could see where it could get pretty complicated pretty quickly, especially if you don't know what interLATA services are.

Mr. SHARP. We have never heard of the term before.

Mr. MARKEY. Mr. Chairman, you and I are uniquely positioned to try to resolve this issue.

Mr. SHARP. I am sure.

Mr. MARKEY. And I think that——

Mr. SHARP. Well, I share the gentleman's perspective and frustration. I do know this process has a way of finally throwing up its hands, though, if we don't make the effort and just, say, oh, shoot most of the Members of Congress and shoot most of the regulators and then see what happens——

Mr. MARKEY. Shoot the commissioners.

Mr. SHARP [continuing]. to make an effort to sort it out in order to protect the consumers if we can.

Mr. MARKEY. They would be calling this PUHCA, wouldn't they? The gentleman from Virginia.

Mr. BOUCHER. Thank you, Mr. Chairman.

Let's assume that we are successful in establishing this greater degree of coordination among the regulatory agencies. Mr. Katz, I would like to get you to comment on the appropriateness of having this added degree of competition in telecommunications services.

Assuming that we meet the consumer protection requirements that we have all been discussing this morning, would it be helpful to have this added degree of competition?

Mr. KATZ. I think if we meet the consumer protection needs so that we ensure that there isn't cross-subsidization and given that the utilities are able to enter into these new markets, that it would indicate that would be working in the consumers' favor because we would be preventing cross-subsidy by hypothesis—that they would be able to bring in these new services at a cost that was below what was being charged to consumers. In addition to the direct benefits of lower prices to consumers, we believe it might also work to stimulate innovation in the marketplace.

Mr. BOUCHER. So the answer is yes, thank you. A very elaborate yes.

Mr. KATZ. Since no one will talk to me from the other agencies, I have to take advantage of the time.

Mr. BOUCHER. We will always be glad to talk to you here. There are a lot of electric utilities that are offering communications services today. I have a list here. It is pretty comprehensive. And that has been going on for some time in the case of many of these electric utilities.

So tell me, if you will, if there have been any problems in terms of cross-subsidies so far and any problems in terms of coordination among the regulatory authorities that are responsible for making sure it doesn't happen?

Mr. Katz?

Mr. KATZ. I personally am not aware of any problems, but before giving an answer on behalf of the Commission, I would have to check with the staff.

Mr. BOUCHER. All right. Is anyone aware of any problems? We are not here and if anyone is here, we would like to hear that.

Mr. Russell.

Mr. RUSSELL. The only one that I am aware of is that we had a presentation regarding Entergy and their involvement in telecommunications, and the issues as we have discussed today became an allocation issue where 2 percent of the investment into telephony was being used for the benefit of retail electric ratepayers.

The question, then, became what happened to the 98 percent, and who bore the cost of the development, not only for finance and for establishment and operation, but also on brain drain, what type of individuals were used from the electric side to instigate and initiate the issue of telephony and where did those costs lie.

Mr. BOUCHER. And you are evaluating those issues today; is that correct?

Mr. RUSSELL. Again, I am from Michigan. Entergy was down in the Louisiana area. All I am saying is I am aware of an issue that is currently live on the subject. I can't speak as to where that is going to result.

Mr. BOUCHER. Apart from that, we haven't heard of any complaints with respect to cross-subsidy and I would assume that is the view of the panel.

Let me ask you, Ms. Moler, one final question and that is this: I missed a little bit of the exchange that you had with Chairman Markey concerning your view as to the appropriateness of our legislating this year.

Would I be correct in assuming that it is the position of FERC that if it is necessary in order to fix the Ohio Power case that we legislate on the front of both Ohio Power and freedom for the registereds to offer communications services that the FERC would support us going forward in that fashion?

Ms. MOLER. The Commission has taken a position on the need to fix the Ohio Power legislation. The Commission as a body has not taken a position on the telecommunications issue. It is axiomatic to me that if the telecommunications horse is able to pull the Ohio Power fix, we would be happy to have that occur.

Mr. BOUCHER. All right. Thank you very much. Thank you, Mr. Chairman.

Mr. MARKEY. The Chair will recognize himself again.

So Mr. Russell, right now, I think we all support this. I don't think there is any disagreement on the committee. If an electric utility exclusively within the confines of the State of Michigan wants to get into the telecommunications business, it is one-stop shopping, they go to see you.

Mr. RUSSELL. That is correct.

Mr. MARKEY. And you and the commissioners are able to open up the books, you see where every project inside that electric utility is, where the revenue flows are coming from, where they would go to and you are able to basically do it as a one-stop shopping opportunity for any electric utility that might want to get into that business inside the State of Michigan.

Mr. RUSSELL. We could give either carte blanche authority, or we could condition authority.

Mr. MARKEY. You could do whatever you wanted to, but we could protect the ratepayers of the State of Michigan.

Mr. RUSSELL. We feel we could.

Mr. MARKEY. Now, once you get to a situation where it is a multi-city State, you necessarily have to deal with all these people and perhaps a couple of other people who would sit next to you that have the same job you have except in another State?

Mr. RUSSELL. That is correct.

Mr. MARKEY. And so it could get a little complex, then, in terms of the ability now to coordinate all of this activity, adding in the FCC and a whole bunch of new technologies that aren't necessarily within the expertise of Chair Moler or Mr. Roberts. Although they are very intelligent people, they don't necessarily have any history in intraLATA, or interLATA, or interactive, or whatever it is we do on the Telecommunications Subcommittee.

So that is a problem for us here, just to stipulate the limitations that exist today in the knowledge base of these various agencies, and Mr. Katz would have to stipulate the same thing with regard to electricity or natural gas or other energy products. I mean, that is just reality here, and it is something that we are going to have

to, I think, deal with, because there clearly would have to be much closer coordination between the FERC, the SEC, and the FCC in terms of coordination if we did allow this to happen.

What if the agencies disagree? How do we resolve that disagreement? I mean, we have the Ohio Power case where there is a disagreement between the FERC and the SEC. Do we have a 2-to-1 vote among the agencies? Do you need 3-to-0 before you get to who negotiates with Mr. Russell or do they have their own semifinal 3-to-1 vote among the 3 States and then you finally make it to meet with them? What is the mechanism we have for resolving disputes amongst all these entities?

Mr. Katz, do you have a recommendation to us?

Mr. KATZ. I don't have a recommendation on a specific resolution except perhaps to suggest that the FCC be in charge. But I think what you have pointed out, if I can go back to an earlier question about whether the safeguards in the legislation are adequate, I think the legislation lays out principles for what the safeguards should do but it is largely silent on how they would be carried out and the myriad of issues that would have to be worked out before we could put those safeguards in place.

So I think you are absolutely correct, you have identified an issue and it is clear the legislation doesn't have a way of resolving disputes among the different agencies. Although we are all people of goodwill and would try to cooperate, there obviously will be differences of opinion and it will be difficult to resolve these.

I also want to pick up on something else you had said in terms of saying that each of the agencies would have to have the staff learn new skills. I think that is completely correct. As I said earlier, in order for us to assess the cost and the cost allocations, we would have to look at the power company side as well, which means learning a lot of new things.

As an economist, I might say, well, it is the same old principles, but certainly the details would be much different.

Mr. MARKEY. OK. So you would be doing that while you were implementing 3636, 3626, and the cable bill, and new satellite allocations while learning the energy industry cold. And you would be doing the same thing, of course, Ms. Moler, going back the other way, learning everything you could about all the protections which we are trying to build in 3636 and 3626 as to those cross-subsidizations as well, because you would have to be familiar with them, of course, in order to fully track all of the flow that would now be coming through the electricity.

Mr. Katz, the registereds are interested in providing a variety of telecommunications services in addition to traditional telecommunications services such as video and telephony. Some envision using telecommunications facilities to provide energy conservation services, remote meter reading, and other utility functions.

Does the FCC intend to regulate in any way the provision of these other services?

Mr. KATZ. I can't speak for the Commission on its intention to regulate those other services. Largely that would be a legal question and I am not competent to judge that. I can say that it does raise an issue in terms of where one draws the dividing line in talking about communications services and a question that was in

my mind in looking at the legislation—as to what extent communications facilities that are used privately by the utility, will be counted in the utility rate base as opposed to being put over separately in the communications entity. And I think that issue potentially is an important one because it can affect the ability of the collective regulatory agencies to divide up the tasks.

Mr. MARKEY. OK. Now, who would have responsibility for that, you or FERC?

Mr. KATZ. At this point, I am not—it is not clear in my mind how that responsibility would be divided up. That is one of my questions.

Mr. MARKEY. That is very helpful to us. We just don't want to set up a scrum, if you understand what I am saying, that would have each and every issue subject to some kind of ad hoc process that you all would put together that would result in a plethora of Ohio Power cases having to be rendered by some Federal District Court due to power struggles and the ambiguity in legislative intent that might be sent out of the Congress.

And we just don't want Federal District Court judges or the Supreme Court of the United States making these decisions. We think we should make the decisions as to who will resolve each one of these issues and who has the final say, and I think that we should just determine that is going to be our responsibility.

We are going to make each and every one of these decisions, and we are not going to be setting up some court process to be dealing with these issues. We don't like it when the courts have to resolve any of our telecommunications issues, and I think the Energy Committee feels the same way with their jurisdiction as well. It is ultimately something that we just decide.

Mr. MARKEY. And why don't we, with the thanks of the committees, dismiss this first panel, but it is with the intention of working very closely with you in the ensuing several weeks so that we can have as much information as is obtainable and as much conversation transpiring amongst the various regulatory agencies so that we can get as close as we can to a resolution of any of these issues as is possible this year.

And with that we will, with the thanks of the committees, ask the second panel to now move up to the table. We welcome you all, and we have now been able to identify the employees of the various Federal agencies. And if you all were wondering who they were, they are sitting out there.

So now we are down to the panel which will give us the perspective of each of the interests that is affected by the legislation. And we will begin by asking Dr. Mark Cooper, the director of research for the Consumer Federation of America if he could give us his perspective.

STATEMENT OF MARK COOPER, DIRECTOR OF RESEARCH, CONSUMER FEDERATION OF AMERICA

Mr. COOPER. Thank you, Mr. Chairman. I appear today on behalf of the Consumer Federation and the Environmental Action Foundation. Together these two organizations have almost a decade of joint experience in seeking a consumer-friendly, environmentally responsible, competitive electric utility industry.

The unique thing about our long-term working relationship is its ability to strike a balance between consumer goals, environmental goals, and public policy goals for sound industrial organization. CFA has also been actively involved in seeking to protect consumers in the new information age. The subject of today's hearings is one that raises grave concerns across all of these areas.

In the past decade CFA has documented an abysmal pattern in the performance and behavior of unregulated holding companies in telecommunications, or regional holding companies. Tens of billions of dollars of ratepayer money has been siphoned out of the telephone subsidiaries and into unregulated, nontelecommunications entities. These enterprises have performed poorly at best, yet ratepayer money continues to flow in. The list of abuses we have compiled runs the gamut from subtle forms of cross-subsidy to the most outrageous examples of outright fraud.

This is not to suggest only multistate holding companies in the telephone industry are the only bad apples in the barrel. As you heard from the previous panel, the history of diversification in the electric utility is not all that promising as well. Billions have been invested with little payoff. Captive ratepayers have been the source of cash flow and have been abused in a variety of cases like OPCO and the old Middle South system. And then the interstate companies have also exhibited some abuses, like Pinnacle West CMA, and there may be yet some shenanigans in Virginia.

However, allowing multistate registered holding companies into telecommunications opens a special can of worms from our point of view that could spell disaster for electric utility ratepayers.

Now, while we understand the desire to build the information superhighway and to have regulatory parity between potential entrants into the information age, ensuring companies an equal opportunity to rip off ratepayers is not what we have in mind. The solution is not a level playing field for another set of holding companies to engage in another round of abuses.

Registered holding companies possess a unique and especially dangerous form of market power with captive ratepayers in many States and regulatory gaps between the Federal and State jurisdictions. The abuses that gave rise to the Holding Company Act are lurking just around the corner, waiting to be set free.

The legislation that is before this committee and on the Senate side simply cannot prevent those abuses from reemerging. Multistate registered holding companies pose such an immediate threat to ratepayers we would prefer that they not diversify into these businesses. However, if Congress is bent on letting them, then it must provide at least an equal opportunity for ratepayers not to be abused.

Regulatory authority and standards must be threatened, and here is my list to provide: One, advance review of entry into telecommunications; two, preservation of State authority to reject diversification in advance; three, a test of the net benefit to captive utility ratepayers as the standard to diversification; four, preservation of SEC authority over all contracts for same services or construction entered into by affiliates; five, full access to books and records with the presumption in favor of disclosure to protect captive ratepayers; six, pricing rules that not only prevent cross-sub-

sidy but also ensure that utility ratepayers get least cost service. In an industry with joint and common costs, cross-subsidy is not the issue. It is the allocation of costs between lines of business that is.

Let me suggest that since it has been broadly admitted that only 2 percent of the bandwidth is necessary for demand-side management, that maybe Congress should stipulate only 2 percent or less of the costs of the bandwidth be allocated to the electric utility ratepayer. Now there is a starting point for some consumer protection. Two percent is a very small number.

Seven, authority to erect firewalls to protect utility ratepayers from the risk of diversified businesses is crucial. And eight, diversification only after affirmative findings with full standing for the public to participate. The SEC has a ministerial process: Send me a letter and you are in. That will not protect consumers.

Without these protections, registered holding companies will charge off the information superhighway to electric utility ratepayers while they incrementally price telecommunications services. Demand-side management will be grossly overpriced. Utility ratepayers will be grossly overcharged while stockholders take excess profits or achieve artificial market share in their unregulated telecommunications business.

Electric utility ratepayers lose through higher rates. Telecommunications ratepayers lose through the loss of competition. The environment loses through overpriced conservation. The only winners are the unregistered holding companies. We are back to 1932.

The rush to construct the information superhighway is an undertaking that will cost perhaps a quarter of a trillion dollars. That is more than all the money spent on all the nuclear power plants started or finished in this country. Most of the entities seeking to enter the information superhighway want an unfair advantage. They seek to have current ratepayers overpay for existing services as a source of funds to build the superhighway. Multistate electric utilities and other registered holding companies would have an unique ability to effectuate that form of economic coercion because of their firm monopoly over millions of ratepayers and the misfit between the multiple jurisdictions in which they operate.

I raised the example of nuclear power plants to parallel the information superhighway to remind legislators and regulators that public officials cannot be cheerleaders for technologies. They must be responsible representatives of the public interests. Electric utility ratepayers know all too well that sometimes technologies do not deliver their promises and sometimes regulators and legislators must exercise a firm hand guided by a skeptical eye. The Public Utility Holding Company Act was passed to address what may well have been the most horrendous period of consumer abuse in a single industry in this Nation.

The Congress should be very careful in lifting the Holding Company Act protections which have served the consumer so well. Thank you very much, Mr. Chairman.

Mr. MARKEY. Thank you, Dr. Cooper, very much.

[The prepared statement of Mr. Cooper follows:]

STATEMENT OF MARK N. COOPER, DIRECTOR OF RESEARCH, CONSUMER FEDERATION OF AMERICA

Mr. Chairman and members of the committee: I appear today on behalf of the Consumer Federation of America and the Environmental Action Foundation. Together, these two organizations have almost a decade of joint experience in seeking to ensure a consumer friendly, environmentally responsible, competitive electric utility industry. The unique thing about our long term working relationship is its ability to strike a balance between consumer goals, environmental goals and public policy goals for sound industrial organization in the utility industry. CFA has also been extremely active in seeking to protect consumer interests in the emerging information age. The subject of today's beating is one that raises grave concerns that cut across all of these areas.

In the past decade CFA has charted the pattern of performance and behavior of unregulated holding companies in the telecommunications area. I have submitted several reports for the committee record demonstrating that the experience of diversification has been abysmal. Tens of billions of ratepayer dollars have been siphoned out of telephone subsidiaries into unregulated, non-telecommunications entities. These enterprises have performed poorly at best, yet ratepayer money continues to be pumped into them. The list of abuses we have compiled runs the gamut from subtle forms of cross subsidy to the most outrageous examples of outright fraud.

The history of diversification in the electric utility industry is no more encouraging. Billions have been invested with little economic payoff. Captive ratepayer cash flow has been the implicit and explicit lever used to support a stream of investments that cannot pass market tests.

Allowing multistate registered holding companies to diversify into telecommunications opens a can of worms that could spell disaster for electricity ratepayers. While we understand the desire to build the information superhighway and to have regulatory parity between potential entrants into the information age, assuring companies with immense market power an equal opportunity to abuse ratepayers is not what we have in mind.

Registered holding companies possess a unique and especially dangerous form of market power, with captive ratepayers in many States and regulatory gaps between the Federal and State jurisdictions. The abuses that gave rise to the passage of the Public Utility Holding Company Act are lurking just around the corner. We know that because we experience them on almost a daily basis in the telecommunications industry where, unfortunately, there is no restriction on holding companies.

We experience them in affiliate transactions where ratepayers overpay for services. We experience them in real estate deals where operating subsidiary leases are used to capitalize above market prices in the sale of assets. We experience them in the misallocation of capital costs where holding companies attribute low cost debt to their risky unregulated entities and underwrite that debt with high cost equity in their regulated subsidiaries.

This is not to suggest that multistate holding companies in the telephone industry are the only bad apples in the utility industry. We have plenty of examples of registered holding companies abusing ratepayers, like the OPCO case and the old Middle South system. There are also plenty of examples of exempt holding companies which have abused consumers too, like Pinnacle West and the current shenanigans in Virginia.

The solution for abuses by some holding companies in the telecommunications and electricity industries is not to level the playing field for another set of holding companies to engage in similar abuses. Unfortunately, the legislation being considered to exempt registered holding companies from PUHCA for purposes of communications services could do just that because the regulatory protections it embodies are simply inadequate to prevent these abuses.

Multistate registered holding companies pose such an immediate threat to ratepayer interest that we would prefer that they not diversify into other businesses. However, if Congress is bent on letting them into these businesses, then it must provide a much stronger set of protections that will give ratepayers at least an equal chance of not being abused.

The inadequacy of the legislation falls into two categories, inadequate regulatory authority and inappropriate regulatory standards, that must be rectified.

Regulatory authority must be strengthened to provide:

—Advanced review of entry into telecommunications subject to a test of net benefit to captive utility ratepayers;

—Preservation of state authority to reject diversification subject to the same standard;

—Preservation of SEC authority over all contracts for sales, service or construction entered into by the all affiliates;

—Full access to books and records with the presumption in favor of disclosure to protect captive ratepayers.

Regulatory standards must be improved to provide:

—Pricing rules that not only prevent cross-subsidy, but also ensure utility ratepayers receive least cost services;

—Authority to erect firewalls to protect utility ratepayers from the risk of diversified businesses;

—Affirmative findings to allow diversification with full standing for the public to participate.

There is a natural tension between the monopoly and competitive sides of diversified utility's business. Higher rates from monopoly customers facilitate lower rates for the competitive customers. The utility's customers, unlike its shareholders, are not willing participants in the expansion effort. Shareholders who become uncomfortable with the diversification decisions can sell their shares and leave. Ratepayers cannot.

One electric industry fact will not change, at least in the foreseeable future: retail service will remain a monopoly for most customers as a result of government-granted franchises. Unless regulators become involved, the job of resolving shareholder-ratepayer conflicts lies with utility managers, who will resolve the conflict in favor of stockholders. The task of determining the public interest must lie with the public's representative: the regulator.

Some utilities view regulatory conditions on diversification as impediments to market entry. That criticism incorrectly applies competitive thinking to a monopoly market. Utility shareholders seeking more diversity, including entry into competitive markets, are free to invest in other businesses on their own. That type of investment would face no "impediment."

Some may argue that discouraging utility diversification deprives other industries or regions of the utility's managerial experience and skill. Nothing prevents these employees from setting up their own corporation to engage in these activities. This approach preserves the managerial experience for the marketplace (and the utility shareholders, who can own shares in the new corporation directly), while protecting the utility and its ratepayers from risk.

The legislation permits unlimited layering of corporations between the public utility (or its holding company) and the communications entity. Specifically, section (a) defines a "communications entity" to include a person who engages in telecommunications activities "indirectly through ownership of securities or any other interest." This phrase permits acquisition and ownership, without advance Federal review, of an unlimited number of corporations provided each corporation owns a corporation which owns a communications entity.

Multiple corporate layers make regulation more difficult. Given the uncertain level of resources and statutory authority available to State Commissions, the creation of a Federal right to have unlimited layers could create a mismatch between regulatory risk and regulatory readiness.

If diversification is to be permitted, it should be conditioned on advance review. Advance review is necessary because after-the-fact protection is not fully reliable. That advanced review should ensure that regulators have the authority and ability to pierce the corporate veil and protect ratepayers from a variety of potential harms which can be inflicted by the diversification. In keeping with the spirit of PUHCA, the standard of that review should be to ensure a net benefit to captive ratepayers of multistate holding companies.

The draft language could lead to unnecessary litigation over whether the Congress intends to preempt State Commissions from determining for themselves whether individual utilities should enter the telecommunications business.

Registered holding companies insist, virtually unanimously, that the protections of the existing Public Utility Holding Company Act are unnecessary because State Commissions can regulate sufficiently to protect consumers. Although State Commissions are working valiantly to undertake their new and difficult obligations under the Energy Policy Act of 1992, few States have been able to increase their staffing since enactment. Therefore, the preparedness of States to ensure that the benefits and risks of the new potential competition are handled appropriately varies.

In this difficult and uncertain transition, a State must have the ability to determine, for itself, whether the benefits of its local utility entering, or being affiliated with an entrant into, the telecommunications business, outweigh the regulatory risks and costs. A State should be free, for example, to determine that protecting consumers from the risks of its local utility's entry into the telecommunications business would require more resources than are available; such that a simple bene-

fit-cost analysis, measured from the perspective of consumers, requires prohibition on such entry.

This is the tradition under the Public Utility Holding Company Act. The Act was intended to supplement, not supplant, State Commission decisions.

Section (c) may render this legal status quo uncertain. Section (c) states:

—Notwithstanding any provision of this Act, a registered holding company shall be permitted to acquire and hold the securities or an interest in the business of one or more communications entities without the need to apply for or receive approval from the Commission.

Reading this phrase independently of the remainder of the sentence might lead one to conclude that Congress intended that registered holding companies be permitted to acquire telecommunications entities, and that no State may interfere with such acquisitions. This interpretation would produce unnecessary litigation.

The clear intent should be to permit States to make their own decisions with regard to this type of acquisition, as they have historically. Some general savings language, indicating that nothing in this proposed legislation prevents States from exercising whatever authority they have under State law to prevent or condition acquisitions, would be important.

The approach most consistent with current law would be to copy the EPACT model set forth in new PUHCA sections 32(k)(2)(A)(i) (related to interaffiliate transactions) and 33(a)(2) (related to acquisition of foreign utility companies). These provisions require an affirmative finding by the State Commission, before the utility system takes the particular action, that the Commission has the authority and the resources necessary to protect consumers. This approach ensures that no acquisitions or affiliations take place "in the name of the consumer" until the official protectors of the consumers affirmatively have instituted the necessary protections.

New section (d) lists the types of activities which will be subject to the continuing jurisdiction of the Securities and Exchange Commission. The list includes

—The issuance of securities by a registered holding company for purposes of financing the acquisition of a communications entity, the guarantee of securities of a communications entity by a registered holding company and the creation or maintenance of other relationships in addition to that described in subsection (c).

This list ought to include, explicitly, the "entering into service, sales or construction contracts ..." This phrase would ensure inclusion in the list of matters subject to continuing SEC jurisdiction, the traditional interaffiliate arrangements which today are subject to sections 12 and 13 of the Act. This phrase was included in new section 32(h), which apparently was the model for proposed new section 34(d). Although our suggested phrase clearly would come within the phrase "the creation or maintenance of other relationships", to prevent future legal ambiguity (stemming from the omission in new section 34(c) of language included at the same spot in section 32(h)), the language should be included.

The regulators should have:

a. Access to books and records of utility and all its affiliates to the extent such access is relevant to the protection of ratepayers.

b. Access to the books and records of any third party who is or will become a joint venturer of utility or an affiliate of Retail Utility to the extent such access is relevant to the protection of ratepayers.

Some utilities resist disclosure of financial information on their non-utility businesses, claiming competitive harm. As with arguments against regulation of diversification, these arguments ignore the utility's and the Commission's obligation to protect ratepayers. State and Federal Commissions must determine what information they need to protect ratepayers. These provisions of the law should make it clear that the presumption is in favor of Commissions seeking information to protect captive ratepayers.

The draft legislation does not contain a standard which ensures fair compensation to utility ratepayers that have borne the financial risk associated with assets to be used by utilities in the provision of telecommunication services to other customers.

The problem of cross-subsidy exists whenever a single entity operates in both a monopoly context and a competitive context. In the monopoly context, ratepayers by definition have no alternatives; therefore, the supplier can raise prices with relative ease. In the competitive context the opposite is true—in the event of a price increase, customers can turn to alternatives. An entity operating in both worlds can maximize profits by shifting costs from customers who have alternatives to those who have no alternatives.

The matter is not simply one of cross-subsidy in the strict sense of pricing below incremental cost, but of pricing to protect both competition and captive ratepayers. When a utility owns the asset or employs the worker, the regulator should ensure that the utility carries out its obligation to minimize ratepayer cost. The utility can

minimize ratepayer cost by maximizing revenues: by selling the goods or services at the highest possible price. When the utility is using an asset or employee owned by an affiliate, the regulator should ensure that the utility does not incur larger costs (and therefore impose higher charges on its customers) than it would had it used a nonaffiliate's asset or employee.

i. *Where the utility purchases goods or services from its affiliate, the proper rule is "lower of market or fully allocated book."* That rule ensures that the nonutility subsidiary does not provide goods or services to the utility at a price exceeding the utility's cost in purchasing the good or service prudently from a third party or creating it in house. The premise is that if the affiliate could produce the good or service below market price, so can the utility. The utility, by virtue of its affiliation, controls the goods or employees able to provide the low-cost services. The utility's customer obligations require it to deploy those resources to its captive customers. Without this rule, the affiliate would perform for a profit services which the utility is obligated, under its franchise, to perform at cost. In effect, the utility would be using corporate form to increase its rate of return above allowed levels.

ii. *Where the utility sells goods or services to its affiliate, the proper rule is "market price."* Where fair market value exceeds allocated book cost, this rule ensures that utility and its ratepayers receive maximum value and the affiliate is treated like all nonaffiliates. The fair market value rule is rooted in the utility's obligation to minimize ratepayer cost. Specifically, the corollary to cost minimization is revenue maximization. A utility with surplus capacity has a duty to sell that capacity at the highest price. That principle applies not only to power supply (where it has been applied frequently), but to other goods and services as well.

To give certainty to regulators, consumers and investors, this standard should be stated explicitly in any legislation.

Boucher (f) and Reigle section 34(j), containing the "Prohibition on Cross-subsidization" implies the wrong standard. The provision addresses the situation in which the communications entity provides the service or product to an associate company (like a utility company). The provision requires the terms of such sale to be comparable to those offered by the communications entity to nonaffiliates. As explained above, where a non-utility affiliate (such as a telecommunications company) provides service to a utility affiliate, the price should be the lower of cost or market. Otherwise ratepayers will have borne the economic risk of assets or employees, but not realized the full benefit.

Another example of the inadvertent application of the wrong pricing rule appears in proposed section 34(e)(2). That provision requires a communications entity to carry out any promotion directly through its company, except that

—Institutional advertising carried out by the registered holding company or its associate companies shall be permitted so long as each party bears *its fair share of the costs* of such advertising. (emphasis added). To the extent the costs attributable to such advertising are costs of capacity or employees historically financed by ratepayers, where the ratepayers bore the economic risk, the costs should not be really "allocated" to the telecommunications entity; instead, access to the utility ratepayer-financed assets or employees should be at market.

Proposed new sections 34(h) and (i) permit a public utility to

—Assume the liabilities of its affiliated telecommunications entity;

—Issue securities for the purposes of financing the acquisition, ownership or operations of communications entity;

—Guarantee the security of the communications entity; and

—Encumber its assets or the assets of any subsidiary of the utility for the benefit of a related communications entity.

These types of transactions historically have been prohibited on the grounds that the utility serving captive customers should not have its wherewithal gambled on the hope that an affiliated competitive business would succeed.

These provisions permit these types of transactions, provided the State approves the transactions, except for the pledging or encumbering of utility assets, which appears to be permissible without state approval. The other condition is that to each of these types of transactions, no cost associated with them may be included in rates without the express approval of the State Commission.

These types of transactions should be prohibited, as they have been historically, except to the extent the purpose of the transactions is to benefit the ratepayer of the affiliated electric utility. In this specifically defined situation, where the utility is engaging in a financial transaction for the benefit of its own customers, there is no internal conflict of interest. Where the service is to be provided in the competitive market, however, two key principles argue against permitting these types of transactions. The first is the principle of fair competition. The utility should have

no competitive advantage in the market to provide telecommunications services by virtue of its historic affiliation with a government granted monopoly. The second principle is consumer protection. There is no benefit to the existing customers of the monopoly utility to have their utility provide services elsewhere. Applying these principles does not block anyone's entry into the marketplace; it simply ensures that such entry is subject to the normal rules of competition.

To protect against excess business risks, there should be caps on diversified investment, type-of-business and place-of-business reviews, and review of divestitures. The caps place a direct limit on total investment in nonutility or distant utility businesses. The type-of-business and place-of-business reviews ensure that the utility system has the skills and knowledge to manage new risks prudently. The divestiture review ensures that any sale of a business occurs prudently and at minimum risk to ratepayers.

There should be an advance, affirmative finding concerning effects of the acquisition on cost of capital, capital structure, cost of debt and debt ratings. This advance review permits the regulator to anticipate problems before they occur and establish rates which make utilities responsible for the risks they incur.

The procedure by which the Securities and Exchange Commission will determine whether an applicant meets the definition of "communications entity" is flawed.

Specifically, the statute should make clear that:

1. The Commission must make an affirmative decision granting exempt communications entity status. The applicant should not be able to become a communications entity at its sole discretion (Boucher) or "lapse into" "communications entity" status merely because the Commission fails to act within 60 days (Reigle).

2. An appeal should be available for those denied "communications entity" status, as well as those adversely affected by an order granting "communications entity" status. To ensure that consumers have standing in court, the Congress should make clear that consumers of the electric utility affiliated with a communications entity and customers in markets which the communications entity intends to serve can be harmed by an erroneous grant of communications entity status.

The rush to provide the information age through the construction of the information superhighway is an undertaking that will cost well over a quarter of a trillion dollars. In the aggregate, it will cost more than all the money spent on all the nuclear power plants started, or finished, in the past several decades. The technology is exciting, but it is expensive. Most of the entities seeking to build it are looking for a subsidy. They seek to have current captive ratepayers pay excessive rates for existing services as a source of funds to build the superhighway. Multistate electric registered holding companies would have a unique ability to effectuate this cross subsidy because of the firm monopoly hold over millions of ratepayers and the misfit between the multiple jurisdictions in which they are regulated.

I frequently raise the example of nuclear power plants as a parallel to the information superhighway to remind legislators and replators that public officials must not be cheerleaders—they must be responsible representatives of the public interest. Electric utility ratepayers know all too well that sometimes technologies don't deliver their promise and sometimes regulators should exercise a firm hand guided by a skeptical eye. The Public Utility Holding Company Act was passed to address what may well have been the most horrendous period of consumer abuse in a single industry in the history of the Nation. The Congress should be very careful in lifting Holding Company Act safeguards, which have served consumers well for over half a century.

Mr. MARKEY. Our next witness will be Mr. Herschel Abbott, general counsel of BellSouth Telecommunications, Incorporated.

Mr. ABBOTT. Thank you very much, Chairman Markey.

Mr. MARKEY. If you could turn on the microphone.

STATEMENT OF HERSCHEL ABBOTT, GENERAL COUNSEL, BELLSOUTH TELECOMMUNICATIONS, INC.

Mr. ABBOTT. Thank you very much, Chairman Markey. BellSouth appreciates the opportunity to present its views on the issue of allowing registered companies to enter into the competitive telecommunications market. I also want to acknowledge Congressman Boucher's leadership on this particular issue.

Competition is here in the telecommunications industry, and it is here to stay. There are plenty of competitors already, and

BellSouth does not oppose entry by PUHCA companies, so long as there are safeguards that will adequately protect electric customers and competition. Those safeguards do not exist today. The financial risks associated with the telecommunications industry are exponentially greater than envisioned even 2 or 3 years ago. If PUHCA companies are going to undertake the risk of entry into this arena, then Congress must be certain that it is the shareholders who bear this risk, and not the ratepayers.

At present, the protection afforded the electric utilities customers from this sort of investment is grossly insufficient. Most PUHCA companies do not have in place either the cost allocation procedures or effective affiliate transaction safeguards to protect the electric ratepayer from cross-subsidization of the PUHCA company's experiment in telecommunications. Because of the virtually absolute prohibition against PUHCA companies' entry into other fields, there has been within that industry almost no experience with or development of regulatory safeguards that are pervasive in the telecommunications field.

For the reasons stated above, those safeguards have been largely unnecessary for PUHCA companies until now. According to its testimony in Louisiana, one PUHCA company does not even recognize the need for additional safeguards as they claim their entry into telecommunications. While representing to the Louisiana regulators that the cost of the proposed pilot program will be borne by the shareholders, LP&L and NOPSC, subsidiaries of Entergy, have stated in pleadings that cost allocation procedures and effective affiliate transaction safeguards are irrelevant. It is obvious, even to the casual observer, that without such safeguards there can be no assurance that the cost of the proposed trial will in fact be borne by the shareholders and whether the trial program has the economic benefit claimed for it.

There has been also a thorough and clever sales job on the part of some PUHCA companies who represent a fiberoptic infrastructure for electric load shifting, and demand side management is necessary, and that 98 to 95 percent of the spare capacity on that infrastructure is somehow a fortuitous by-product. It is far from clear and has not been demonstrated to the satisfaction of local and State regulators in Louisiana that said infrastructure is necessary for either load shifting or demand-side management. Experience in England indicates that time-of-use rates alone, without any infrastructure whatsoever, can accomplish significant load shifting without a costly and sophisticated system.

Electric customers must use a certain minimum level of electric power to justify the cost of building out the infrastructure said to be necessary for the demand side management programs. Customers in economically disadvantaged areas do not generally achieve the necessary minimum level of power usage, and therefore, it is unlikely that those disadvantaged areas would receive any benefit from the infrastructure. Simple time-of-use rates are equally available to everyone.

The PUHCA companies, if allowed into the telecommunications field, should be subject to the same principles of equal access and interconnection as their competitors, including nondiscriminatory access to their poles, conduits and rights-of-way.

Finally, there should be serious concern in the area of consumer privacy. The gadgets frequently proposed to control the use of electricity in your home would provide enormous amounts of information about you. The use of this information should be a matter of grave concern to Congress and safeguards should be established in advance of any authorization to use this type of equipment.

Thank you, Mr. Chairman and members of the subcommittee, Chairman Sharp as well, for the opportunity to present our views. I will be happy to answer any questions at the appropriate time.

[The prepared statement of Mr. Abbott follows:]

STATEMENT OF HERSCHEL ABBOTT, GENERAL COUNSEL, BELLSOUTH TELECOMMUNICATIONS, INC.

Good morning Mr. Chairmen, distinguished members of the subcommittees. My name is Herschel L. Abbott, Jr., and I am general counsel-Louisiana for BellSouth Telecommunications, Inc., the telephone operations unit of BellSouth Corporation. Thank you for the opportunity to address a joint hearing of these two subcommittees today on the issue of allowing registered public utility holding companies into the competitive telecommunications market.

As you know, BellSouth has been interested in this issue as a result of ongoing proceedings in our Louisiana operating territory. On December 1, 1992, Louisiana Power and Light and New Orleans Public Service Inc., filed Least Cost Integrated Resource Plans in their regulatory jurisdictions. These companies are electric services operating entities of Entergy corporation, a holding company subject to the Public Utilities Holding Company Act of 1935 (PUHCA). These plans contained proposals for numerous demand side management programs and other supply side programs to meet the requirements of the least cost integrated resource planning process.

One of the demand side management programs, known as the Residential Customer Controlled Load Management program, proposed a fiber optic and coaxial cable communications network to the homes of high electric usage customers where customer premise equipment would allow demand side management applications such as meter reading and load control. The hybrid fiber/coax cable network would interconnect to a fiber backbone network already in place in the Entergy system for internal operational communications applications.

Technical disclosures in the Least Cost Integrated Resource Plan and data collected from Entergy through data requests in the regulatory proceedings revealed that only 2 percent to 5 percent of the capacity of the fiber/coax network was necessary to support the Customer Controlled Load Management program as planned. In addition, the cost recovery methods documented in the Least Cost Integrated Resource Plan would have Entergy recovering all costs of these facilities from electric ratepayers, including the costs of unused capacity of the network. This unused capacity, according to the 1992 Annual Report of Entergy Corporation, would be used in the future to provide telecommunications, video and other interactive services.

After an investigation by the New Orleans City Council and the Louisiana Public Service Commission, in which BellSouth participated, Entergy agreed to a limited trial of the Customer Controlled Load Management technology to be held initially, and allegedly, at shareholder expense. After the trial, Entergy will attempt to recover the relevant costs of the network capacity used to specifically support the Customer Controlled Load Management program. Thus, the Entergy ratepayer may have been spared the burden of cross-subsidizing Entergy's non-energy related ventures if stringent cost allocation procedures are put in place before the trial begins.

Your subcommittees have asked BellSouth to comment on the effectiveness of regulating electric utilities that diversify into telecommunications, the risks and benefits of allowing PUHCA companies to establish communications subsidiaries or affiliates, and the protections that should be afforded consumers and investors in those companies under a PUHCA exemption.

The benefits of allowing electric utility holding companies to establish a PUHCA-exempt communications operation are the benefits that competition in general can bring to the market in terms of customer choices, development of innovative new services and furthering the concepts of a National Information Infrastructure (NII).

However, the entry of electric utilities into telecommunications raises many concerns about regulatory authority and appropriate safeguards. The protections afforded by PUHCA against self-dealing, cross-subsidization and concentration of economic power in entities not subject to state regulation must be retained and

strengthened. The telecommunications operations of a PUHCA company must be regulated by the same regulatory authorities and on the same terms and conditions as their competitors in the telecommunications market, namely the FCC and State PUC's.

The regulatory regime for managing the competitive communications market must be one in which regulators and regulations for providers of communications services must be consistent. The FCC, under the authority of the Communications Act of 1934, and State PUC's under the authority of State laws, are the appropriate expert agencies for regulating telecommunications services to the extent regulation remains necessary in a competitive market. Other agencies, such as the FERC or the SEC, should not be required to extend their jurisdiction and expertise into these areas.

The FCC and State PUC's have been managing the transition of communications markets to a competitive environment for many years. The efforts of these expert agencies have included opening the customer premises equipment market to competition, the entry of competitors into the long distance market, the offering of enhanced services, the entry of competitive access providers to the access market, and collocation of competitor's equipment in local exchange carrier central offices. More recently, these agencies, particularly at the State level, have addressed the issue of intraLATA toll competition, which BellSouth is subject to in all 9 States of its operating territory, and the emerging question of local competition at the local exchange level. These expert agencies also have played a major role in determining the competitive regulatory regime for the introduction of new technologies such as cellular and PCS services.

The protection of electric ratepayers and the protection of competitive interests of other market participants will not be met adequately if appropriate safeguards are not implemented. There is a risk that asymmetrical regulation will be applied to new market entrants to the detriment of existing communication services providers and their customers. These risks can be minimized by ensuring that all competitors be required to contribute equitably to the preservation and enhancement of universal service, by ensuring that regulatory reforms are implemented that provide incentives in a competitive market to modernize existing infrastructure and by applying safeguards to all service providers.

There are at least three types of safeguards that a regulator could apply to power company communications entities to ensure that electric ratepayers pay only the proper costs allocated to energy use and communications customers pay only the proper costs allocated to communications services. These methods are fully separate subsidiaries for communications services, non-structural safeguards or a combination of structural separation and nonstructural safeguards. The FCC and State PUC's have a 28-year history of investigation and oversight in the development of safeguards to prevent competitive abuses. Some of these investigations include Computer Inquiries I, II, & III, Part 32, Part X (Joint Cost Order or Part 64 proceeding) dockets, numerous audits and informal investigations.

Fully separate subsidiaries would separate the communication operations from all other non-communications activities of the PUHCA company and would provide the maximum level of separations. The separate subsidiary would be required to maintain separate books of accounts, records and functions from the holding company or affiliates. Under this method, additional safeguards still would be used to ensure that affiliated transactions are properly monitored and executed. Affiliate transaction policies and procedures involve the transfer pricing of goods and services between, in this case, the communications subsidiary and any other affiliated company. Periodic independent audits of affiliated transactions could be an additional safeguard.

Allowing non-structurally separate communications offerings within the power company requires the application of additional safeguards. For example, the issue of cost allocation, which refers to the separation of costs between one product or activity and another product or activity (i.e., power related costs versus communications costs), must be determined. Cost allocation procedures provide the means to capture direct costs as well as allocate joint and common costs between products or activities. Other safeguards could include affiliate transaction rules, reporting requirements to regulatory agencies and periodic independent audit requirements. There are other competitive safeguards that may be applied such as restrictions on the use by communications marketing personnel of electric ratepayer customer proprietary information.

There are other regulatory models that effectively apply a combination of structural and non-structural safeguards to provide the protections required for electric ratepayers. Congress will, of course, weigh the risks of abuse associated with any safeguards against the competitive interest issue.

Power companies, if permitted to provide communications services, additionally should have the same equal access and interconnection obligations applied to them as these obligations are applied to their competitors, including non-discriminatory access to their poles, conduits and rights-of-way as proposed by pending legislation to apply to other local exchange carriers. The power company's communications entity also must be concerned with public interest issues including, but not limited to, network security, reliability, interoperability with other networks, and privacy.

The legislative proposals you are reviewing should explicitly apply regulations to PUHCA-exempt communications entities in the same manner currently imposed by the FCC and PUC's today on local exchange carriers. In legislation recently passed by the House, buy-out restrictions limit Bell company entry into cable markets within their existing service territories when there exists only a single cable operator. The legislative proposals you are considering today should establish similar restrictions with regard to electric utility buy-outs of local exchange carriers in their existing electric service markets. If not, then acquisitions could occur that would impede competition, not protect it.

BellSouth welcomes fair competition in its markets. Indeed, BellSouth currently is seeking approval to enter communications markets where it is prohibited from participating due to artificial restraints not based on market conditions. While there are parallels between the efforts of electric utilities to lift the restraints of PUHCA and the efforts of the Bell companies to obtain relief from the Modification of Final Judgment (MFJ) and cable restrictions, there are important distinctions as well.

The interests of some power companies to enter the communications business is quite different from a telephone company's interest in offering a full complement of communications services to its customers. For this reason alone, it is essential that Congress provide adequate protections for electric utility ratepayers served by those companies seeking to diversify into communications. Equally important, Congress must enact the regulatory reforms necessary to allow existing communications providers to compete with the new entrants in their markets. These reforms must take place simultaneously to foster fair and effective competition.

In conclusion, your two subcommittees have provided a forum for the issues to be heard and discussed from the perspective of many different parties affected by pending proposals. Our position on competition is clear—we welcome competition, within a competitive framework that is applied equally to all competitors in a non-discriminatory manner. In addition to providing additional avenues for competitive entry into communications markets, Congress must provide the initiatives to ensure that regulatory reforms are implemented for incumbent communications providers so an environment of regulatory parity exists for all competitors.

Thank you for the opportunity to address the joint hearing of these subcommittees today.

Mr. MARKEY. Mr. Abbott, thank you. It is an honor to have you and Mr. Cooper here, joined together for the first time on our stage, BellSouth and Consumer Federation of America.

I was going to tell the joke about when they brought in old man Joe Kennedy; and President Roosevelt, he said, Joe, I want you to be the first Chairman of the Securities and Exchange Commission. He said, Mr. President, Why do you want me? He said, It is going to take a crook to catch those crooks.

Mr. Abbott, it takes a cross-subsidizer to catch a cross-subsidizer. I very much appreciate your expert testimony.

The Chair recognizes the gentleman—I couldn't resist. I am sorry.

The Chair recognizes the gentleman from the Central and South West Corporation, Mr. Thomas Shockley, III.

STATEMENT OF THOMAS V. SHOCKLEY, III, EXECUTIVE VICE PRESIDENT, CENTRAL AND SOUTH WEST CORPORATION

Mr. SHOCKLEY. Thank you, Chairman Markey, Chairman Sharp. I appreciate this opportunity also; and as I was wrestling with exactly how I should respond to the remarks that have just been made, I appreciate your help in that regard.

I am an executive vice president with Central and South West Corporation, which is a holding company regulated by the 1935 act. We have about 1.5 million customers in Texas, Louisiana, Oklahoma and Arkansas.

Basically, we are here to ask for your support in giving us the opportunity to enter this new industry. We think it is very right and appropriate. We agree with a great many of the issues that have been brought forward today, and we think that those issues that have been discussed as troublesome are certainly very fixable.

Communications is not new to our industry. It is certainly something we have had in the intense need to do well, to make sure we ran our companies well, and in fact have done that for a number of years. We do not shy away from any regulation required to make sure none of the concerns that have been raised are in place. We recognize the issue of customer protection.

Specifically, the cross-subsidy issue is one that does have to be addressed. One of the issues that was described earlier with regard to the inability of the State commissions to address this, I would question very highly, because our State commissions that we work with are very much aware of the issue and address that on a daily basis. There is not a single rate case that we file in which this issue is not carefully studied, and our customers that are subject to the protection of the PUC are very adequately protected at the State level. We also have wholesale customers that are protected at the FERC level for the same issues.

So there is a great deal of oversight, and I would argue that a great deal of this protection is already in place. The protection not only runs to direct cross-subsidies as far as charges that may be inappropriate or costs that may be picked up, but it even runs to the cost structure associated with debt inequity. To the extent any impact of the parent company affects the debt cost, our State regulators have the authority to, in a pro forma fashion, only charge the customers what is appropriate from the healthy electric subsidiary.

The other question that was brought forth with a great deal of interest in the letters that we were asked to respond to is, why should we be allowed to enter this particular industry. I guess the two responses I would give you for this particular issue are that our shareholders deserve the right to have the same opportunity as shareholders of other electric companies. Shareholders of other companies have the right to expand into areas that they think they can do profitably, and we should enjoy that same right. The second and perhaps even more important issue on why we should be allowed to do this runs to the fact that we can create competition.

We are a wonderful user of the superhighway with regard to the fact we have a specific need that adds value, that reduces the costs needed for facilities to provide reliable electric service which can be dramatically impacted, and so I think when you look at the things that we bring, a healthy financial structure, we bring competition, and we bring a use, that we truly can add value to this situation.

Thank you.

Mr. SHARP [presiding]. Thank you very much.

[The prepared statement of Mr. Shockley follows:]

STATEMENT OF THOMAS V. SHOCKLEY, III, ON BEHALF OF CENTRAL AND SOUTH WEST CORPORATION

Good morning, Chairman Sharp, Chairman Markey and members of the subcommittees. I am Thomas V. Shockley, III, executive vice president of Central and South West Corporation ("CSW"). Central and South West Corporation is a registered holding company under the Public Utility Holding Company Act of 1935 ("PUHCA").[1] It serves approximately 1.6 million electric customers in the States of Texas, Oklahoma, Arkansas, and Louisiana through its subsidiary operating companies: Central Power & Light Company, West Texas Utilities Company, Public Service Company of Oklahoma, and Southwestern Electric Power Company. If our pending merger with El Paso Electric Company is approved, we will also serve portions of New Mexico. My views today are consistent with those of the other nine electric registered holding companies.[2]

As executive vice president of CSW I am responsible for overseeing all of our company's investment in enterprises other than the traditional utility business. Thus, it is appropriate that I appear before you today to convey CSW's views on participation by registered holding companies in the national information infrastructure and the telecommunications business.

It comes as a surprise for many people to find that CSW, like many utility companies, is already in telecommunications by virtue of being in the electric business. The control of an integrated utility system in which all component parts are highly interdependent requires an extensive telecommunications capability. It is critical to our operations to be able to maintain real time control over all of our generating units and other essential facilities. In most instances, the only way for us to achieve acceptable levels of telecommunications reliability is for us to own our own systems and equipment, and we are encouraged to do so by our regulators.

At present the CSW system maintains an extensive telecommunications infrastructure:

Central Power & Light Company ("CP&L") has a digital microwave system with a maximum capacity of 672 channels. CP&L also has a 185 mile 42 count fiber optic cable in South Texas.

Public Service Company of Oklahoma ("PSO") has an analog microwave system with a maximum capacity of 600 channels. PSO also has over 165 miles of fiber optic cable serving the Tulsa area with fiber counts ranging from 8 to 72 fibers. This fiber system has a capacity of 8,064 channels running on a 565 Megabit loop system.

Southwestern Electric Power Company ("SWEPCO") has an analog microwave system with a maximum capacity of 300 channels. SWEPCO also has three fiber links with fiber counts ranging from 12 to 20 fibers. Currently, SWEPCO's fiber terminal equipment provides a maximum of 672 digital channels.

West Texas Utilities ("WTU") has an analog microwave system with a maximum capacity of 300 channels. The remainder of our operating subsidiaries' telecommunications transport needs are met through leased circuits.

Currently, the four operating subsidiaries operate a total of 110 land mobile radio stations, supporting 3,000 mobile units. CSW is in the process of installing a new state-of-the-art, system-wide land mobile network to replace its outdated land mobile equipment and to accommodate future growth in land mobile needs. Land mobile units are typically interconnected with CSW's microwave and fiber units.

Finally, CSW recently received permission from the Securities and Exchange Commission ("SEC") to form a new subsidiary, CSW Communications. CSW Communications has acquired CP&L's existing fiber optic capacity and will facilitate the expansion of fiber optic capacity throughout the CSW system. In addition, within the current restrictions of PUHCA, CSW Communications will market reserve telecommunications capacity to unaffiliated parties.

In summary, CSW has broad experience with the operation of telecommunications systems.

The extension of broad band communications over the "last mile" from existing long distance fiber optic lines to homes, businesses, hospitals, libraries, schools and local governments would revolutionize the way that Americans use information. The

[1] 15 U.S.C. section 79 *et seq.*

[2] Under PUHCA, registered holding companies are generally those that operate multistate systems. The other nine active registered electric utility holding companies are: Southern Company, Entergy Corporation, American Electric Power Company, Inc., New England Electric System, Inc., Allegheny Power System, Inc., General Public Utilities Corporation, Eastern Utilities Associates, Unitil Corporation and Northeast Utilities. In addition there are three gas registered holding companies: Columbia Gas System, Consolidated Natural Gas Company, and National Fuel Gas Company.

best description of this potential transformation is clearly the "information superhighway"—a metaphor with which we are all familiar.

Possible consumer applications for the information superhighway are endless, but the immediate problem is how to get it built. Building the last mile will require significant capital, and there are few immediate sources of dependable revenue to justify the necessary investment. However, in this respect electric utilities have a solution.

One of the things that the information superhighway makes possible is real time electricity pricing. With real time pricing consumers are able to adjust their electric consumption automatically according to a continuously broadcast signal of their local utility's prevailing price. Many electricity consuming appliances such as refrigerators do not have to be run continuously. Thus, the natural result of making pricing information available is to shift electric consumption away from periods of expensive peak demand towards times when demand is less and prices are lower.

Customers like real time pricing because it will give them lower bills. Utilities like the idea because it will permit them to use their existing plants more efficiently. The environmental community likes the idea because it will allow utilities to defer the construction of new plants. Real time pricing appears to be a potent demand side management tool.

The development of real time pricing is important for development of the information superhighway because electric generation is very capital intensive. Anything that avoids the need for construction of new generation can itself support large capital investment. Thus, real time pricing and related energy information services can be the "anchor tenants" for construction of the last mile because of their ability to help defer new electric generation. For only minimal additional cost, broad band capacity sufficient to support real time pricing can be expanded to allow capacity for other uses.

Undoubtedly, the information superhighway will eventually be built one way or another. However, if electric utilities are involved in the process it will get built sooner because utilities have immediate applications in mind. Investment in real time pricing and in the infrastructure necessary to provide it is a natural outgrowth of our traditional utility function. We see this technology as a new and significant way of meeting our supply needs. Considering CSW's predominantly rural service territory, it is crucial that CSW be able to immediately begin working with schools, hospitals, telecommunications providers, and other third parties in order to ensure the optimal routing and design of these systems.

CSW is sufficiently impressed with the potential for real time pricing that it has planned several pilot projects. One of these is going forward right now in Laredo, Texas, and involves 2,500 homes using a dedicated communications system. We hope to validate the significant energy savings realized in other pilot projects, including some conducted by the Southern Company. While we seek the ability to invest in telecommunications generally, our focus is on the energy management possibilities inherent in the information superhighway.

It is important for Congress to realize that the old model of utility operation has changed. As a utility company we used to be able to focus on one thing—the building of large central station plants and their integration in one system. For better or worse Congress changed that with enactment of the Energy Policy Act of 1992 and the creation of exempt wholesale generators. Regardless of what happens at the retail level, we will be forced in the future to look at competitive alternatives in the wholesale bulk power market as an alternative to our own plants. While utilities are likely to retain an obligation to serve and to maintain reliability, we will not automatically be the principal builders of future electric capacity as we were in the past.

Some claim that there cannot be genuine competition as long as utilities stand between their retail customers and competing sellers of power. I do not agree with this view. Any reluctance by utilities to deal with competing sellers is disciplined through regulatory oversight by the Federal Energy Regulatory Commission ("FERC") and State commissions. In effect, utilities today are required by their regulators to act as market representatives or aggregators of demand for their retail customers, regardless of their own preferences. The bottom line results bear this out. Looking at 1992, for example, 63 percent of new generation brought on line was developed by non-traditional generators.

Increasing competition in wholesale generation combined with relatively slow demand growth means that CSW's earnings for our shareholders will be flat or declining, unless we can enter things other than the traditional utility business. While we have cut our costs and continue to do so, at some point we have no choice but to seek new markets.

Our ability to invest in exempt wholesale generators and foreign utility companies under the Energy Policy Act of 1992 is helpful, but not necessarily enough. The market for wholesale power is vigorously competitive. The basic problem is not that we are afraid of competition, but that we do not have the same range of opportunity available to other companies. We do not have the freedom to compete where we feel most able. In the brave world of competition new players are free to go in and out of what was once the gilded cage of the utility monopoly, but registered holding companies, among all other entities, remain uniquely locked inside. Our competitors can take any business opportunity as they find it: in, out or on the border of the utility business. We, however, remain confined to a narrow set of possibilities.

Power competition is a harsh discipline which will produce losers as well as winners. This fact makes it all the more important that registered holding companies have investment flexibility. Our expectation is that, regardless of what the marketplace produces, regulators will want us to retain an obligation to serve and to ensure reliability. If we have that role, but no longer have the exclusive right to provide new supplies, it becomes all the more important that we be able to maintain our financial strength in other ways.

For some of the reasons already described, telecommunications is a logical diversification choice for us, one that we feel compelled to pursue. However, CSW believes that there are many reasonable and prudent economic opportunities available to us in other areas as well. The problems we encounter under PUHCA with respect to telecommunications are indicative of problems we encounter generally with diversification into other lines of business. Therefore, we urge Congress to consider generic removal of diversification restrictions under PUHCA in the near future.

In his written testimony Mr. Denicola has summarized the technical requirements of PUHCA very well. In the real world, dealing with these requirements is a constant problem for us. How much of a problem is indicated by the fact that in 1993 alone CSW made 138 separate filings before the SEC under PUHCA. The cost of these filings was enormous, whether measured in terms of legal expense, delay or lost opportunity. Moreover, apart from the difficulty of regulatory compliance the functional relationship test under section 11 of PUHCA stands as a bar to what we would like to accomplish in telecommunications and other areas—both in terms of activities related and unrelated to our core electric business.

At the same time as we labor with the difficulties of PUHCA, two exempt holding companies in Texas (both of whom have more assets than CSW) are able to invest in telecommunications or any other business without such restrictions. One of these companies is in fact a significant provider of cable television services. Several other utility companies around the country have owned cable companies, long distance providers and local telephone exchange providers for some time. The solution is not to make these companies subject to the same regulation we deal with since their telecommunications activities have not caused significant consumer problems. The solution is to give registered holding companies a comparable ability to invest.

PUHCA has only two basic policy purposes. One is the protection of investors. The other is the protection of consumers. CSW does not believe it can seriously be said today that the Holding Company Act today provides any valuable investor protection. The capital markets regularly demonstrate that investors will vote with their feet (or their proxies) when they believe that corporate management is not advancing their interests. This discipline is far more effective and efficient than active government regulation could hope to be. Utility investors (both shareholders and bondholders) are no different than investors in other businesses. In both cases the key protection—the requirement for timely and accurate disclosure of financial information—is found in laws other than PUHCA, particularly the Securities Act of 1933 and the Securities Exchange Act of 1934.

With respect to consumer interests, there are only two real concerns with diversification: (1) cross subsidy problems arising from affiliate transactions; and (2) indirect effects on utility cost of capital from diversified enterprises.

The first problem is dealt with if FERC and State commissions have the power to decide whether the cost of items purchased from an affiliate can be passed through in a utility's rates, and if regulators can ensure that any assets sold by a utility to an affiliate are sold at a fair price. In fact the Senate compromise mentioned later in my testimony ensures that FERC and State commissions do have such ratemaking review over affiliate purchases. In addition, State laws, as well as certain provisions of PUHCA, ensure that sales of assets by utility subsidiaries of registered holding companies to affiliates are subject to regulatory approval.

The second problem is dealt with if FERC and State commissions can adjust for any negative effects of diversified enterprise in setting allowable rates of return for electric ratemaking purposes. In fact, FERC has exercised this authority in the past. Moreover, at the SEC roundtable last week there was testimony that State commis-

sions routinely distinguish between costs that should be born by shareholders and those that should be born by customers.

The remaining policy reason for maintaining diversification restrictions has disappeared. The original object of diversification restrictions under PUHCA was the preservation of regulated utility capital for the purpose of ensuring adequate and reliable supplies of electricity. In turn, the concern with preservation of capital rested on the assumption—valid in 1935 but not in 1994—that utilities had near absolute monopolies in their service territories.

Congress assumed in 1935 that utilities were the only ones who could provide electric service. Utility holding companies had been the financial vehicle through which much of the United States was electrified. They had also proved to be vulnerable to financial abuse under the regulatory conditions of the times. So Congress took some pains in PUHCA to ensure that the capital of holding companies would be maintained in order to ensure electric supply.

Today the premise of monopoly on which PUHCA rests has changed, and utilities are not the only suppliers of electricity. If national policy dictates that competitive markets are to ensure incremental electric supplies, then there is little basis for paternalistic concerns with utility capital, or for distinguishing between utility companies and others under PUHCA. In particular, the ascendance of market forces means that there is no real policy justification for the diversification restrictions placed on registered holding companies under the Act.

At every juncture, diversification opponents cite utility experience in the 1980's as the reason why diversification restrictions should not be relaxed for registered holding companies. In his written testimony, Mr. Denicola does a good job of pointing out why diversification by utilities in the 1980's was in truth not nearly the disaster it is claimed to have been. In fact there are a number of utilities, such as TECO Energy, Black Hills Corporation, and Montana Power, that have done well with diversification. But even if we assume for a moment that the experience was a disaster, it still does not provide a legitimate basis for maintaining diversification restrictions.

For one thing, it is difficult to see how the narrow snapshot of less than 10 year's experience outweighs the rest of the historical record. The story of American corporations is the story of the successful evolution of lines of business rather than the static maintenance of them. Thousands, perhaps hundreds of thousands of American companies, have successfully embarked upon new enterprises since the founding of this country. For example, 3M—Minnesota Mining and Manufacturing—has successfully become, among other things, a leader in adhesives technology. It doesn't do mining anymore. Raytheon, a leader in the defense industry, is now applying its expertise in developing energy conservation products and is, in fact, the manufacturer and installer of the DSM products in our Laredo project. I know of nothing which suggests that utility companies are any more or any less competent than other corporations that have successfully tried new businesses.

It appears that what opponents of diversification really want is a guarantee of success, but that is simply not possible. Business entails risks. Moreover, the fact of risk is just as true inside the utility business as outside of it. In their microscopic scrutiny of failures in diversification, opponents seem to forget that plenty of utility companies have made mistakes in the utility business—ones that far exceed the cost of the worst diversification failures.

There is a business maxim which says, "Do what you know." I believe this is good advice which argues against jumping into completely unfamiliar enterprises. The problem with current law, however, is that it takes this useful proverb and turns it into an inflexible regulatory edict. What any company "knows" is a constantly changing matter, and the wisdom of entering a new business should ultimately be a matter of boardroom rather than bureaucratic judgment. The issue for us is one of control rather than appropriate business strategy.

The subcommittees have asked for specific comment on the Boucher and Riegle PUHCA proposals. As the subcommittees are aware, since invitation letters went out both of these proposals have largely been incorporated into an agreement among interested Senators on the Senate Banking, Energy and Commerce Committees. The agreement melds provisions allowing registered holding companies into the telecommunications business on a reasonable basis with provisions addressing the controversial *Ohio Power* case. As described in Mr. Denicola's testimony, the Senate compromise includes a series of requirements aimed at cross subsidy problems that could arise from telecommunications diversification. CSW believes that these provisions give regulators the additional tools necessary to deal with the consumer impacts of diversification activities.

The Senate action was intensely negotiated among the interested parties. It does not present an ideal world for any interest group. Instead it is a compromise. There

are things we would change in the Senate package. However, we can live with it because of its positive points. CSW doubts that there is another combination of provisions that will create a consensus for going forward.

For all of the reasons discussed in my testimony, CSW urges Congress to adopt provisions allowing registered holding companies to enter the telecommunications business.

Chairman Markey and Chairman Sharp, that concludes my testimony. I would be happy to answer any questions.

Mr. SHARP. I think we are ready for Mr. DeNicola now.

STATEMENT OF PAUL J. DeNICOLA, PRESIDENT, SOUTHERN COMPANY SERVICES, INC.

Mr. DENICOLA. Good afternoon, Chairman Sharp and Mr. Boucher. I am president and CEO of Southern Company Services and executive vice president of its parent firm, the Southern Company, a registered holding company under the Public Utility Holding Company Act of 1935.

The Southern Company is also the parent of five electric utilities in the Southeast: Alabama Power, Georgia Power, Gulf Power, Mississippi Power, and Savannah Electric. My testimony today is on behalf of all of the companies in the Southern Company system and, we believe, is consistent with the views of the nine other electric utility holding company systems.

Mr. Chairman, my testimony today will focus on three essential points. First, electric utilities can play a key role in the construction and deployment of the national information infrastructure, the information superhighway, one that will benefit electric consumers and the country as a whole.

Second, the Holding Company Act, a depression era law that in its current form unduly restricts our contributions to the NII, should be changed to ease those restrictions.

Third, Congress should ensure that the contributions of electric utilities, including the registered holding companies, are not shut out of the NII by any other legislation.

On my first point, we know that fiberoptic lines will form the backbone of the information superhighway. Like many electric utilities, the Southern Company already has such a fiberoptic system. It is an essential tool for operating our electric system, which serves parts of four States. In fact, the Southern Company's telecommunications system is the second largest in our region, and one of the 50 largest in the United States. The extensive fiber systems operated by electric utilities can give us all a good start in building the NII and expanding it throughout the country, even to people in remote rural areas.

In addition, our participation would mean tremendous benefits to consumers. For years, our customers have asked for more control over their electricity use, and the technology is finally here to make that possible. The information superhighway can be the real time communications link between utilities and their customers. It can inform customers of changing electricity prices throughout the day. It will allow customers to shift some of the power use to those periods when electricity is less expensive, the times of lower demand when it costs less to produce power. If enough people take advantage of this, we won't need to build as many new power plants.

That keeps electric rates down, and it also helps people lower their power bills.

In addition, this technology can be the avenue for all sorts of other services, things like long-distance learning, long-distance medicine, voice and data communications, and entertainment. Electric utilities can help make the information superhighway a reality sooner and for less money. That is a benefit to everyone.

On to my second point. The Public Utility Holding Company Act is a particular roadblock to achieving the goal of full contribution to the NII by all electric utilities. It prohibits or restricts use of the full capacity of our present and future telecommunications assets. It impedes the formation of new partnerships for NII deployment by subjecting the partnerships and the partners to PUHCA regulation. Many beneficial business activities are simply forbidden to us under the Holding Company Act, and even when we engage in the activities that are permitted under PUHCA, the regulatory approval process is so complicated, cumbersome and time consuming that most deals in today's fast-moving business climate are all but impossible. We are encouraged that the other body recognizes the benefits of registered holding company participation in the NII.

Chairman Sharp—and Chairman Markey, if he were here—as you are aware, consensus agreement has been reached among the Senate Commerce, Banking, and Energy Committees that would allow all electric utilities to participate in the information superhighway while ensuring consumer protection. Provisions of existing law, together with provisions of that agreement, address two major concerns that have been raised by you and your colleagues: cross-subsidization and indirect effects of utility cost of capital.

While we think the Senate compromise is far from perfect, we think it does a reasonable job of allowing registered holding companies to participate in the NII while addressing these consumer concerns.

The need to change the Holding Company Act leads me to my third point, that Congress should allow electric utilities to help deploy the NII, and allow all electric utilities to participate on an equal basis. It is a matter of fairness for the registered holding companies to be able to invest in the information superhighway, just as all electric utilities should be allowed to take part.

The electric utility industry has much to offer the national information infrastructure. We have a start on building the fiberoptic backbone. We have access to the capital needed to take part in this massive national undertaking. We have valuable applications, such as energy management, that will provide enormous benefits to our customers, for the American consumer, and for the Nation. And, if legislation exempts telecommunications ventures from the Holding Company Act, we would be able to enter into partnerships with others who might otherwise be precluded from offering their products and services to the public.

I hope Congress will allow our industry to help move this great project forward, and I thank you for the opportunity to be here today.

Mr. SHARP. Thank you very much.

[The prepared statement of Mr. DeNicola follows:]

STATEMENT OF PAUL DENICOLA, ON BEHALF OF THE SOUTHERN COMPANY

Good morning, Chairman Sharp, Chairman Markey and members of the subcommittees. I am Paul DeNicola, president and CEO of Southern Company Services, Inc., a Southern Company subsidiary which provides various management services to companies within the Southern Company system. The Southern Company is a registered holding company under the Public Utility Holding Company Act of 1935 ("PUHCA").[1] It serves approximately 3.4 million electric customers in the States of Alabama, Georgia, Florida and Mississippi through its subsidiary operating companies: Alabama Power Company, Georgia Power Company, Savannah Electric Company, Mississippi Power Company and Gulf Power Company. My testimony today is on behalf of the Southern Company as a whole and is consistent with the views of the other nine registered electric utility holding companies.[2]

I appreciate the opportunity afforded to me by the subcommittees to testify concerning participation by registered holding companies in the National Information Infrastructure ("NII"). As the NII moves closer to becoming a reality, the Southern Company urges the subcommittees to keep in mind some basic points:

(1) Southern Company and many other utilities already have a significant investment in telecommunications facilities and many years' expertise in designing, constructing and operating them. The discussion of our role should concern how best to utilize our telecommunications assets and skills.

(2) An extensive telecommunications network is essential to the reliable operation of an electric utility. It is critical to our ability to monitor, evaluate and control all generating, transmission and distribution systems involved in producing and delivering electricity as demand fluctuates moment to moment.

(3) Advanced energy management systems are among the most important services that will be delivered across the "information superhighway." They have the potential to help customers conserve energy and reshape energy use patterns so that the construction of expensive new power plants can be avoided or postponed. Savings from this application are substantial.

(4) Electric utilities are important participants among the many players needed to build and support the information superhighway. Not only do we bring the technical expertise required to design and deploy energy management systems, we have much of the infrastructure necessary to reach all segments of society—rural and urban; rich and poor; residential, commercial, and industrial.

(5) We can facilitate the financing, installation, and operation of telecommunications networks if we are free to develop joint ventures and partnerships with other telecommunications providers. Using our existing assets and expertise in this manner could reduce costs of building the infrastructure, increase its efficiency, and speed its completion.

(6) PUHCA is an unnecessary impediment to the participation of the Southern Company and other registered holding companies in the NII. One provision of the Act restricts our use of our networks primarily to core business activities. Another provision discourages potential partners by subjecting an endeavor to full PUHCA jurisdiction should we own 10 percent or more of it.

(7) We believe that the telecommunications activities of registered holding companies should be exempt from PUHCA requirements, much like the exemption given to exempt wholesale generators (EWGS) and foreign utility companies under sections 32 and 33 of the Act.

(8) The pending telecommunications bills, H.R. 3636 and S. 1822, rest on the proposition that our telecommunications future can best be assured by encouraging competition among many providers. Registered holding companies support this philosophy and ask only that they be permitted to compete like anyone else.

Like most utility companies, the Southern Company has a significant and extensive telecommunications system which it uses primarily to operate our extensive electric system and provide internal communications. The Southern Company's facilities include approximately 1,700 miles of fiber optic cable with several hundred more planned. In addition, Southern has extensive analog and digital microwave networks and several wireless radio dispatch systems. We are already looking to the future and have asked the Securities and Exchange Commission ("SEC") for permis-

[1] 15 U.S.C. section 79 *et seq.*

[2] Under PUHCA registered holding companies are generally those that operate multistate systems. The other nine active registered electric utility holding companies are: Central and South West Corporation, Entergy Corporation, American Electric Power Company, Inc., New England Electric System, Inc., Allegheny Power System, Inc., General Public Utilities Corporation, Eastern Utilities Associates, Unitil Corporation and Northeast Utilities. In addition there are three gas registered holding companies: Columbia Gas System, Consolidated Natural Gas Company, and National Fuel Gas Company.

sion to establish prototype energy management systems using fiber optic/coaxial cable to serve eight neighborhoods in cities of varying size. In addition, we have a request pending before the SEC to establish an 800 megahertz wireless system that would link all of Southern's internal radio communications and provide some additional service to the public. In short, the world of telecommunications is not new to us.

As I explain below, it is logical for utility companies to help build the information superhighway because they will also be "anchor tenants" for it through the use of real time electricity pricing and other technologies.

The NII is principally understood to involve the building of broad band links from the existing long distance, fiber network to homes, schools, hospitals, businesses and governmental institutions. That process of construction will be highly capital intensive. Therefore, the immediate problem confronting those who would see the vision of the NII realized is how to ensure that there will be enough near-term revenues sufficient to support the requisite investment.

The existence of a broad band network providing universal service offers infinite possibilities for consumer applications. But most of these (particularly those related to entertainment) will only grow over time. Few companies are going to step up to the plate to build the required fiber optic links at the local level unless they have a predictable source of revenue that supports most, if not all, of the capital cost. For this reason, as indicated in recent news reports, other telecommunications players may be reluctant to finance the NII in the near term.[3] In effect, the potential investors have concluded that they need to know in advance, "If we build it, they will come."

While building local fiber optic links is capital intensive, building electric generation is even more so. By way of comparison, electric utilities invest three to five times more capital per customer on average than telephone companies or cable companies. Most of this difference in capital investment represents the cost of electric generation.[4]

Real time electricity pricing can fill the critical need for a stable revenue source because it is a potent means of reducing the need for new electric supplies. It can therefore support significant capital investment based on avoided generation costs. Pilot tests of real time pricing technology in Southern's service territory have allowed electric customers to reduce their electric bills by approximately 13 percent as well as their demand for expensive peak generation. The Electric Power Research Institute estimates that real time pricing and other DSM technology implemented through the information superhighway could save the electric utility industry up to $14 billion per year.[5]

In short, electric utilities are prepared to build local broad band links in the near term because they have the end-uses ready now or in the immediate future that will support the investment. In many cases, the construction of these links will simply constitute an expansion of a utility's existing fiber optic system. For only a relatively small incremental investment the broad band capacity necessary for real time pricing and other utility purposes can be expanded to permit the full range of other envisioned uses. In recognition of this economic advantage, other telecommunications providers such as long distance telephone companies, local access providers, cable TV systems, and local exchange carriers have approached registered holding companies to explore development of broad band networks through partnerships and joint ventures.

While electric utilities have much to contribute to the information superhighway, PUHCA stands as a significant impediment, and in many cases an absolute bar, to participation by registered utility holding companies in this grand vision. Among other things, the Act pervasively regulates the corporate structure, investments and securities transactions of registered holding companies. The most significant of these requirements are described below.

Under sections 6 and 7 of PUHCA the SEC must generally approve the issuance of securities by any company within a registered holding company system. The Commission can refuse to approve any securities issuance that is not reasonably adapted to the security structure of the issuer and other companies in the holding company system, that is not reasonably adapted to the earning power of the issuer, or that

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[3] *See, e.g., "Southwestern Bell, Cox Call Off Cable Merger"*, The Washington Post, April 6, 1994, p.D1; *"A One-Two Combination Staggers the Cable Television Industry"*, The New York Times, March 7, 1994, p.D4.

[4] Niggli and Nixon, *"A Serendipitous Synergy: Why Electric Utilities Should Install the Information Superhighway"*, The Electricity Journal (February 1994) chart at p.27.

[5] *"EPRI Surveys Information Superhighway"*, The Energy Daily (April 25, 1994).

"is not necessary or appropriate to the economical and efficient operation of a business in which the applicant is lawfully engaged."

Section 12 of PUHCA prohibits loans from a utility subsidiary to the parent holding company. It also requires SEC approval for various intercompany transactions, including loans from the parent to a subsidiary and guarantees by the parent of a subsidiary company's obligations.

Section 13 gives the SEC authority to regulate contracts between companies in the same holding company system for the performance of services or construction or the sale of goods. Generally, such affiliate contracts must be performed at cost.

Under sections 9 and 10 of PUHCA the SEC must approve any acquisition of securities or an interest in any business by a company in a registered holding company system including the parent corporation. The SEC is required to make findings with respect to a number of matters including the consideration to be paid for the acquisition, the effect of the acquisition on the capital structure or functioning of the holding company system, and finally the possibility of detriment to investors, consumers or the public interest.

The practical effect of the above requirements is to make it very difficult for registered holding companies to conduct business outside of their core utility operations. For one thing, ownership of as little as 10 percent of an entity by a registered holding company makes the entity a subsidiary subject to all of the above requirements under PUHCA. This fact tends to have a chilling effect on investment by potential partners in the entity. Moreover, despite the diligent efforts of the SEC staff, delay in obtaining required approvals occurs frequently. Unfortunately, market opportunities do not wait for regulatory action, and productive business opportunities are easily lost.

However, the most troublesome provision of PUHCA is found in section 11. Under section 11 a registered holding company is limited to ownership of "a single, integrated public-utility system and such other businesses as are reasonably incidental, or economically necessary or appropriate to the operations of such integrated public-utility system." The SEC has interpreted this provision to require a "functional relationship" between any non-utility businesses to be owned by a registered holding company and its core utility operations.

Under the functional relationship test the Southern Company and other registered holding companies are simply prohibited from taking advantage of many socially productive or economically promising opportunities. As interpreted by the SEC, with only few exceptions, the "functional relationship" test of section 11 prevents registered holding companies from investing in any enterprise that would do more than 50 percent of its business with nonaffiliated companies or for non-utility purposes.

This 50 percent requirement serves as a major stumbling block to registered holding company participation in the NII because markets do not segment themselves according to regulatory dictates. For example, the test could frustrate the purpose of the NII by making it impossible for registered companies to serve the needs of the public with the broad band lines that they install for real time pricing purposes. In addition, it may well be necessary to market real time pricing technology with interactive banking or other nonutility end use applications in order to find customer acceptance. Yet the 50 percent test may stand in the way of such arrangements. The pursuit of digital wireless technology by registered companies for internal communications purposes may have logical combinations with nationwide networks, but once more the investment restrictions of section 11 are likely to preclude such agreements. These and other possibilities indicate why PUHCA poses such a problem for registered holding company involvement in the NII.

It is a matter of basic fairness for registered holding companies to be able to invest in the information superhighway. There are more than 100 electric utility holding companies in the United States. All of them with the exception of the 10 registered holding companies can currently invest in telecommunications (or any other non-utility business) without restriction under PUHCA and in most cases without direct regulation under State law. Many of these non-registered or "exempt" holding companies are larger than all but 1 or 2 of the 10 registered companies. Moreover, several of these nonregistered electric companies are already in the cable television and telephone businesses by means of separate subsidiaries and have been for some time.

There is no reason to exclude registered holding companies from the NII or treat them differently. Registered electric companies serve approximately 16 million customers—nearly one in five customers served by investor-owned utilities. In addition, they have been leaders in developing real time pricing and other advanced end-use technologies applicable to the NII. Finally, they reach large parts of rural America—a matter of some importance for realizing the ideal of universal service. Three reg-

istered companies that have been active in the telecommunications field, Central and South West, Entergy and Southern have contiguous service territories that stretch from Texas through Georgia.

The investment restrictions placed on registered holding companies are an artifact of problems long past. In 1935 when PUHCA was enacted, control of America's utilities was highly concentrated. Three holding company systems controlled 49 percent of the electric utility industry, and the next 12 largest companies controlled another 35 percent of the industry. Many of these systems had been organized and put together by promoters who had little background in the electric utility business. Following the market crash of 1929 there were bankruptcies of a number of holding companies. These failures resulted from a host of financial abuses including inadequate accounting, issuance of securities on the basis of fictitious or unsound asset values, and excessive charges among affiliates for services, goods and construction contracts.[6]

Since 1935, however, it has become almost impossible for these abuses to reoccur in any significant way. The Securities Act of 1933 and the Securities Exchange Act of 1934 have been fully implemented and generally require full and prompt disclosure of accurate financial information. A sophisticated financial analysis industry has grown up based on the availability of this data. Uniform accounting requirements are enforced by State commissions and the Federal Energy Regulatory Commission. State utility regulation has been strengthened.[7] All of these factors have circumscribed the regulatory function performed by PUHCA and rendered it largely superfluous.

Some observers have raised concerns that authorization for registered holding companies to invest in and own telecommunications subsidiaries will create opportunities for cross-subsidy between such subsidiaries and utility companies in the same holding company system. Similar concerns arise with reference to expanded business operations of others such as local exchange carriers and cable TV systems.

The Southern Company understands the concerns over the potential cross subsidy issue. However, these concerns are not unique to registered electric utility systems' participation in telecommunications. To the contrary, they routinely arise any time there is a contract between affiliated entities, particularly when one is regulated and one is not, as is the case in many local exchange carrier situations. The solution for affiliate contracts involving telecommunications is to provide appropriate regulatory safeguards without eliminating public benefits deriving from scale economies.

The second danger that opponents of diversification cite is the possibility that an outside investment will fail, have negative financial effects on operating utilities, and thereby cause rate increases for electric consumers. The most direct response to this concern is, of course, that if an outside investment is organized as a separate corporate entity which is linked to an operating utility only through ownership by a common corporate parent (the holding company), the failure of that entity has no direct effect on the utility company or its customers.

But diversification opponents go on to assert that the failure of an investment will surely have a negative effect on the corporate parent's fortunes (since it is by definition the equity owner of the investment) and that this failure is reflected by an increase in the parent's cost of capital. Thus, the argument goes, consumers will suffer since the parent's increased cost of capital is passed on to the operating utility and ultimately reflected in increased rates.

There are two immediate responses to this concern over "indirect effects" on cost of capital. First, the Federal Energy Regulatory Commission ("FERC") and State utility commissions within their respective spheres examine a utility's cost of capital in the course of setting electric rates. They have the power within some band simply to refuse to include in rates a premium related to the failure of a diversification investment by the utility's parent holding company. Second, the exposure is limited in the case of registered holding companies by the fact that operating utilities of registered holding companies typically issue their own debt and preferred equity to the public market. Thus, any negative effects resulting from the parent's diversified investments is felt only through common equity contributions by the parent. Typically, common equity makes up only 40 percent of the capital structure of operating utility subsidiaries of registered holding companies—thus mitigating any effect from investment failure.

Beyond these responses lies a more basic point: that the policy basis for investment restrictions is highly questionable in today's regulatory world. It has become almost a cliche to say that diversification efforts among non-registered utility companies in the 1980's produced a uniform history of failure and that this fact alone

[6] Hawes, Utility Holding Companies 2-4, 2-5 (1987).
[7] *Id.* at 2-30.