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OVERSIGHT OF THE AMERICAN RECOVERY AND REINVESTMENT ACT: BROADBAND

HEARING

BEFORE THE

SUBCOMMITTEE ON COMMUNICATIONS, TECHNOLOGY, AND THE INTERNET

OF THE

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HOUSE OF REPRESENTATIVES

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OVERSIGHT OF THE AMERICAN RECOVERY AND REINVESTMENT ACT: BROADBAND

THURSDAY, APRIL 2, 2009

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

The subcommittee met, pursuant to call, at 9:35 a.m., in Room 2322 of the Rayburn House Office Building, Hon. Rick Boucher (chairman) presiding.

Members present: Representatives Boucher, Markey, Rush, Eshoo, Stupak, Inslee, Weiner, Butterfield, Matsui, Christensen, Space, Dingell, Stearns, Shimkus, Radanovich, Walden, Terry and Blackburn.

Staff present: Roger Sherman, Senior Counsel; Pat Delgado, Policy Coordinator; Tim Powderly, Counsel; Shawn Chang, Counsel; Greg Guice, Counsel; Philip Murphy, Legislative Clerk; Sarah Fisher, Staff Assistant; Neil Fried, Minority Counsel; Amy Bender, Minority FCC Detailee; and Garrett Golding, Minority Legislative Analyst.

OPENING STATEMENT OF HON. RICK BOUCHER

Mr. BOUCHER. The hearing will come to order.

I want to welcome our witnesses this morning and thank you for testifying before us today.

The United States has a unique opportunity, although the circumstances which have brought this opportunity about are unpleasant, and the condition of our economic emergency is dire.

The $7.2 billion contained in the American Recovery and Reinvestment Act for broadband programs is welcome and in fact is much needed. The United States is 16th in the world today in broadband deployment as measured by the percent of our population that subscribes to broadband, and for the sake of our national economy we have got to be better. Broadband, in my view, is as essential an infrastructure today as telephone service or electricity services were when they were introduced more than 100 years ago and communities that do not have access to broadband will lag behind in commercial competition and so it is important that we take steps in Congress to develop a national broadband plan and we are doing that. It is also very welcome that the American Recovery and Reinvestment Act provided $7.2 billion for broadband deployment. That, I think, is an important first and

properly deployed by the agencies responsible can help elevate our standing in the world in terms of broadband usage.

Congress has widely divided this money between the National Telecommunications and Information Administration at the Department of Commerce, which was allocated a total of $4.7 billion, and the Rural Utilities Service of the Department of Agriculture, which received $2.5 billion. I am very pleased that the Administration is treating these two allocations as two parts of a continuous and uniform program. The agencies should work together to ensure the maximum amount of consistency in program management and development, and it is my understanding that with facilitation from the Administration, that is what today they are both doing. We will learn more about that this morning.

The money is among other things to provide broadband service including infrastructure and equipment both in unserved and in underserved parts of the Nation. Both unserved and underserved areas are important and are deserving targets for these expenditures. The statute in fact requires that the program be targeted both toward unserved and underserved areas of the country. We want to ensure that everyone has access to broadband and we also want to ensure that everyone has access to broadband at meaningful speeds and at truly affordable prices and can benefit from competition among service providers.

For the broadband programs to be truly effective, we also need a sensible definition of unserved. We would not, for example, want to exclude areas where there is a smattering of broadband service but where the service is generally absent throughout the community. As Mr. Large will testify this morning, when agencies define "unserved" unreasonably and disqualify an entire community from a broadband grant program because a single home within that community has access to high-speed Internet services, large numbers of people, the entire balance of that community, most of which does not have access to broadband, will suffer.

Similarly, the agencies must craft a definition of "underserved" with great care. It is, for example, appropriate to provide support where there is currently only one broadband provider and so a community gets the benefit of market competition by another provider or perhaps multiple additional providers entering that community and then providing that service, and we should not equate underserved only with the absence of competition. Underserved means other things as well. It can also refer to communities that have inadequate broadband speeds. A community should not be disqualified from the program because there are multiple providers offering broadband with a download speed, for example, of 256 or perhaps 512 kilobits per second. That is a slow speed and not adequate for what most people would consider to be broadband and high-speed Internet access.

And finally, communities where broadband is only available at unreasonably high prices should also in my opinion be considered to be underserved.

The NTIA funds are subject to non-discrimination and interconnection requirements and the art of applying this provision will be to develop standards that meet a number of separate tests. First, are they meaningful and do they ensure open and non-pro-

prietary networks. Secondly, it is important that they not be overly burdensome for the providers of the services. And third, can they be put into place quickly, and I would suggest that all three of these standards should be met. We do not want to deter applicants and therefore need definitions that will not inhibit private sector providers from applying for this program. If the program is going to work truly effectively, we want to encourage a broad range of private sector applicants everywhere across the country and the standards that are put in place for openness and non-discrimination must be consistent with that objective.

The programs should also honor the principle of technological neutrality that will ensure that we build out our broadband more efficiently. The agencies should truly consider all available technologies for broadband offering including wireline, wireless, satellite and point-to-point microwave as appropriate for the terrain, for the size of the population that will be served through the project and other location-specific factors that are relevant to the circumstances.

I think it is also important to keep in mind that the stimulus program contained in the American Recovery Act is not our national broadband policy. As I suggested earlier, it is an important first step in getting broadband out to more unserved and underserved areas but the subcommittee is going to be actively involved in looking at ways that will achieve truly universal broadband deployment and this stimulus fund, ample as it is, is insufficient to achieve that larger purpose. We made a direction in the Recovery Act for the FCC to develop within 1 year a national broadband plan and this subcommittee looks forward to working closely with the FCC as the work is undertaken by the agency to develop that plan and produce it within that 1-year period.

I want to commend the NTIA and the Rural Utilities Service as well as the FCC for the tremendous work that these three agencies have done so far in developing in these very early stages a plan for expending the broadband funds contained in the stimulus measure. We will be hearing from our witnesses this morning about that progress to date and the future direction that you will be taking as the program takes final shape.

I want to thank you once again for your participation here. We welcome your testimony.

Mr. BOUCHER. At this time I am pleased to recognize the ranking Republican member of our subcommittee, the gentleman from Florida, Mr. Stearns.

OPENING STATEMENT OF HON. CLIFF STEARNS

Mr. STEARNS. Good morning, Mr. Chairman, and thank you for your opening statement. I hope there won't be a test on your opening statement.

Thank you, and I hope this will be the first in a series of oversight hearings on broadband. Obviously we live in a very exciting time. New applications, innovations are created all the time. In a relatively short period of time we have gone through primitive computers—I remember the original Mac—to e-mailing to streaming video with billions of dollars of investment. The future is very bright and we are only limited by our imagination.

Broadband has the potential to transform our everyday lives from how we work, how we receive medical attention and how of course we are entertained. Accordingly, we need a long-term investment in broadband infrastructure that is based on free market principles and not government run. Broadband technology will spur long-term economic growth by creating jobs, fostering innovation, increasing international competitiveness and improving the quality of life for all Americans. It can fundamentally alter our economy so we have obviously a tremendous opportunity.

Now, the American Recovery and Reinvestment Act of 2009 provides a total of $7.2 billion for broadband, $2.5 billion of which will go to the Rural Utilities Service and the remaining $4.7 billion will go to the National Telecommunications and Information Administration. In addition, the Federal Communications Commission will consult with the NTIA and RUS and develop a national broadband strategy.

I applaud the focus on this type of transformational infrastructure. However, this can only be transformational if done right and can provide an enormous long-term economic boost. Unfortunately, the haste with which the legislation was drafted and enacted and the short time frame the respective agencies are afforded to accomplish their task may prevent the agencies from achieving these worthwhile goals as effectively as might otherwise have been possible. The very real risk of course will be that taxpayers dollars are once again wasted on another ineffective government program.

Now, to prevent this, NTIA and RUS and the FCC need to take three basic principles into mind when distributing this grant money. First, a comprehensive nationwide broadband inventory map must be conducted. It is common sense that we should know where to spend the money before the money is actually spent. Nationwide broadband mapping may not be complete before the stimulus requires the funds to be spent. However, maps have already been completed in a number of States and maps in other States may also be finished before it runs out.

Perhaps we can prioritize funding for projects in States where mapping is complete. This can also help to ensure that requests are well thought about and provide a valuable incentive to complete maps in the remaining States as thoroughly and as quickly as possible. By identifying the areas that currently lack broadband service, the agencies will be better equipped to make decisions on how to best spend taxpayers' money. The likelihood of waste, fraud and abuse increases if we act before having the benefit of this information. A ready, fire, aim approach could be bad.

The second principle is to focus on unserved areas before underserved. We should ensure that everyone gets firsts before others are allowed to get seconds and thirds. Allocating funds to underserved areas first could distort the marketplace, either because companies will wait for government funding rather than go forward with their own investments or will be forced to complete with a government-subsidized competitor.

The third and final principle is that the allocation of broadband funding needs to include a strong criteria based on whether a project will be sustainable without additional government funding. According to the statute, most of the broadband grant money must

be awarded by next September and each project must be substantially complete within 2 years of the award. I am reminded of Milton Freeman's quote when he said, "Nothing is so permanent as a temporary government program." Grant receipts must demonstrate that they exist without the generosity of the federal government so that in 3 to 4 years we do not need to bail them out.

As these agencies begin the process to set the rules for the broadband grant program, I urge them to follow these three principles and ensure that the rules are technologically neutral. We have a tremendous opportunity to boost our economy and transform the way we live. Throwing money indiscriminately at the problem will prevent us from accomplishing the long-term economic growth broadband investment can deliver and will only cost us more money down the line. We cannot let this opportunity pass by. It is too important.

Thank you, Mr. Chairman.

Mr. BOUCHER. Thank you very much, Mr. Stearns.

The gentleman from Michigan, Mr. Dingell, the chairman emeritus of the full committee, is recognized for 5 minutes.

OPENING STATEMENT OF HON. JOHN D. DINGELL

Mr. DINGELL. Thank you, Mr. Chairman, and I commend you for holding today's hearing. These are important matters. I am delighted with your early initiative in ensuring that the broadband grants and loans provided in the American Recovery and Reinvestment Act of 2009, ARRA, are subject to adequate and ample oversight. ARRA's authorization of the Broadband Technology Opportunities Program, BTOP, at the National Telecommunications and Information Administration, NTIA, and a new grant program at the Department of Agriculture's Rural Utilities Service represents a significant and urgently required commitment on the part of this government to building out its broadband infrastructure, which according to an OECD report, ranks a shameful 15th among the 30 top industrialized economies in the world. Although encouraging such technology growth is vital to transforming the telecommunications infrastructure of the United States and preparing it for the economic realities of this new century, we must guard against doing so in a disorganized fashion, and furthermore wasting taxpayers' funds on what might degenerate into boondoggles.

As my time is short, I will confine myself to those activities and those agencies subject to the jurisdiction of this committee, namely NTIA and the Federal Communications Commission. Much discretion is left to NTIA and FCC in implementing BTOP and I hope these agencies will today provide us with detailed information concerning how they propose to prioritize grant applications, the roles of the States in the grant process, NTIA's strategy for consumer education, conserving broadband literacy and each agency's plan for combating waste, fraud and abuse in the largest federal broadband infrastructure development grant program in the history of the United States.

Similarly, I would urge both agencies, NTIA and FCC, to move expeditiously to define a number of terms left open in ARRA, in particular, what constitutes an underserved area, which I believe should be based on speed of available connections rather than num-

ber of service providers in a given area. This is urgent to accomplishing an orderly development of broadband and seeing to it that ARRA in fact does work.

Finally, on a related note, I am curious how the witnesses assembled here today believe the broadband infrastructure created as a result of BTOP and RUS programs should be maintained in the future. For example, should the Universal Service Fund also disburse funds to make certain that all Americans have affordable access to broadband communications.

I have a matter of personal pleasure and privilege here. I wish to note with great pleasure that Mark Seifert is appearing before us today as NTIA's representative. Welcome back, Mr. Seifert. Mark was an invaluable and indispensable member of the Committee on Energy and Commerce staff when I was the chairman and I can think of no person more dedicated or qualified to administer NTIA's great responsibility under ARRA. Welcome back, Mark Seifert.

I yield back the balance of my time.

Mr. BOUCHER. Thank you very much, Chairman Dingell.

The gentleman from Nebraska, Mr. Terry, is recognized for 2 minutes.

OPENING STATEMENT OF HON. LEE TERRY

Mr. TERRY. Thank you. I just want to start by thanking you, Mr. Chairman, for holding this hearing so that we can get a grasp of the programs that I think will be of great benefit, particularly to rural America in making sure that they have access to broadband like most other parts of America, and I also want to thank Mr. Villano and Mr. Seifert for briefing staff members this week. Bart Stupak and I have the honor of being the co-chairs of the Telecom Taskforce of the Rural Caucus. I appreciate your efforts there.

What we have lacked in Congress, well, as a Nation, is a real true broadband policy. We barely have been even able to come together to define broadband, let alone a policy of getting it out to the consumers and our constituents. I think between the chairman's and mine USF reform bill and now this $7.2 billion going to NTIA and RUS, puts us in a position where we really have to develop that policy now. I am not sure technically you put the money before the policy but whatever gets us the policy, I guess that is what we are going to embrace.

So now we are going to have to develop the definition of broadband, what the speed is, what is unserved and underserved. I think the chairman did a great job of outlining the multitude of questions that must be answered rather quickly by these two entities. My hope is that we see coordination between the two entities so you are working off of the same playbook and we don't have funds that compete against each other. With limited funds, I think it would be poor policy to have competing agencies, government entities, funding competitors in a small rural area. So I appreciate your efforts in that case and I want to hear how those efforts are progressing to make sure that there is a playbook from which all are running the same plays.

So with that, Mr. Chairman, I will yield back my time.

Mr. BOUCHER. Thank you very much, Mr. Terry.

The gentlelady from the Virgin Islands, Ms. Christensen, is recognized for 2 minutes.

OPENING STATEMENT OF HON. DONNA M. CHRISTENSEN

Ms. CHRISTENSEN. Thank you, Mr. Chairman. As it is this committee's responsibility to monitor the progress on the portions of the ARRA over which we have oversight, I want to take this opportunity to thank Chairman Boucher and Ranking Member Stearns for holding this timely hearing.

As a person of color and one who represents an area that generally is considered rural, which has a high rate of poverty and is largely unserved, I am pleased that the tone of almost all of the testimony that has been submitted focuses on reaching the marginalized communities and bridging the digital divide.

I want to draw attention as we prepare to disburse these funds to some of the unique circumstances of our Nation's territories: one, our small market size; two, the more than two times higher cost, sometimes as high as eight times higher cost, of deployment due to a number of factors, the need for additional mitigation funds because of our propensity for hurricanes and even earthquakes, and we are pleased to see that there is such collaboration actually between the three agencies. It is our hope that the definition of "unserved" and "underserved" will be helpful and forthcoming shortly and that there will be neutrality so that all forms of transmission will be equally able to access funds either singularly or together.

Thank you, Mr. Chairman, and I return the balance of my time.

Mr. BOUCHER. Thank you very much, Ms. Christensen.

The gentleman from Oregon, Mr. Walden, is recognized for 2 minutes.

OPENING STATEMENT OF HON. GREG WALDEN

Mr. WALDEN. Thank you very much, Mr. Chairman. I appreciate it and I will say in advance, I have a conflicting set of scheduling issues today so I have to leave a little before 10:30.

I appreciate your holding this hearing and I think this oversight is especially important. I was the one who raised issues about the timing of the process leading up to how this money will be spent and so I will have some questions for the witnesses. I would like to know, for example, from NTIA and FCC how the agencies will balance costs to time to deploy broadband speed, affordability of the service, all those sorts of things. I think it is important to get some adequate level of broadband underserved and unserved markets and say the 1 to 3 megabit rate as opposed to waiting a long time to get the gold-plated service out there perhaps. Reasonable access to broadband at reasonable speeds I think is really important.

I represent a district that is 70,000 square miles and probably represents some of the most unserved areas and so of course part of my passion is, how do we make getting broadband out to those unserved areas a priority, I think our ranking member addressed that as well, as opposed to bringing the third, fourth, fifth, sixth service into a market that already has it and so these definitions really do matter, and I wonder if you would agree that all compli-

ance requirements associated with USF funding need to be known by the applicants prior to the funding being awarded. We are having quite the mess of it around here, and after the TARP vote and after the stimulus vote and a few other things, trying to figure out what we expected out of companies that took the money and what we didn't and now we are in this whole retroactive effort, which is sort of disgusting, and so I look forward to reading your testimony and hearing from you on these matters.

And finally, I know I have been in conversations with my own State public utility commission and they had a proposal I think nationally to take a tranche of the money, pool it and be responsible for it to get it out there in areas where they know it could be properly used and I would be curious to get your reaction to that concept as well.

Thank you, Mr. Chairman. I thank our panelists for their testimony.

Mr. BOUCHER. Thank you very much, Mr. Walden.

The gentlelady from California, Ms. Matsui, is recognized for 2 minutes.

OPENING STATEMENT OF HON. DORIS O. MATSUI

Ms. MATSUI. Thank you, Mr. Chairman. Thank you very much for calling today's hearing. I would also like to thank the witnesses for appearing before us today.

We are here to examine the efforts by NTIA, the FCC and RUS in carrying out the broadband programs established by the Recovery Act. As our economy continues to face unprecedented challenges, it is clear that we must invest in new, sound national projects to get people back to work immediately. The economic recovery package that Congress passed in February includes a number of strategic investments that will create new jobs and expand our economy. In particular, the package included a $7.2 billion investment in our Nation's broadband system that will be administered by NTIA and RUS for new grant, loan and loan guarantee programs. This investment will improve access to broadband in unserved and underserved areas and to increase the adoption of broadband by public safety agencies, schools, libraries and medical providers.

It is no secret that our country has progressively fallen behind much of the industrial world in broadband access. For the Nation that invented the Internet, this is simply unacceptable. I am pleased that the Administration recognizes the importance of investing in the next generation of broadband technology and infrastructure as a critical element of economic development and growth for the United States. It will also lead to new well-paying jobs. Leading economists estimate that investment in broadband infrastructure will create thousands and thousands of good jobs throughout this country. Moreover, a recent Department of Commerce study revealed that communities with broadband added one percentage point to the employment growth rate in that particular area. Broadband expansion is a strategic investment that will benefit the education of our children, the delivery of health care and will provide the impetus for future growth of our great country.

I thank you, Mr. Chairman, for holding this important hearing today and I yield back the balance of my time.

Mr. BOUCHER. Thank you very much, Ms. Matsui.

The gentlelady from Tennessee, Ms. Blackburn, is recognized for 2 minutes.

OPENING STATEMENT OF HON. MARSHA BLACKBURN

Ms. BLACKBURN. Thank you, Mr. Chairman.

Welcome to our witnesses. We are glad that you are here because we know we are going to have to work together to make certain that broadband is expanded in this country. We had some legislative timeline and goalposts in the language that was passed. We know that the stimulus was a very confusing deal. It is confusing for our constituents. But reviewing those timelines, this is kind of what we know and I think where I am going to want to proceed with some of my questioning. The NTIA must complete a national broadband map by 2011, and we know that the Broadband Data Improvement Act enacted last year has a separate mandate for NTIA to compile this within 2 years. So we have got a little bit of conflict there. We know the FCC must unveil a national broadband plan by February 10, so we are all on different timelines, and then we have the NTIA and the RUS that must finalize and distribute the lion's share of the grants by September 30, 2010. Key terms will determine who is eligible to receive grant funds and where those funds can be used including broadband and unserved and underserved areas and so we will want to talk about that a little bit. And finally, NTIA and RUS expect to release the first round funding availability notices before the end of the summer.

So I am curious about what this is going to mean for grant applicants who consider a grant proposal to the federal agencies being tasked with administering all of these programs because they know it is going to be a lot of work and I think they are trying to figure out if the work is going to be worth it, and a lot of the work is going to take place—you all are going to do a lot of the work. It is going to take place outside of our direct control. And sometimes I know that makes those of us in Congress a little bit nervous and it does me, and I couldn't help but think of that as I read Mr. Large's testimony about what had transpired in Patrick County, Virginia. I have counties that are similar to that and I am going to be interested in hearing from you.

Thank you for the time, Mr. Chairman. I yield back.

Mr. BOUCHER. Thank you very much, Ms. Blackburn.

The gentlelady from California, Ms. Eshoo, is recognized for 2 minutes.

OPENING STATEMENT OF HON. ANNA G. ESHOO

Ms. ESHOO. Thank you, Mr. Chairman, for organizing today's hearing on the $7.2 billion that is going to be expended on broadband from the American Recovery and Reinvestment Act.

That Act was really aptly named because this is an investment and it is going to help us recover from the position, the standing that we have in the world relative to broadband which depending on whose survey you look at, we are either 14th, 15th, 16th or 17th in the world with Latvia, Slovenia and a whole host of countries

that are ahead of us. That is not a good record. It is less than a 20th century record, much less a 21st century record.

There are some of us that were contacting the House leadership before the November elections in anticipation of what the outcome would be that broadband be addressed in the stimulus package. So I am very pleased that these monies were approved. Now, how are they going to be spent, how efficient, how effective, what is the reach and where it will take us. I think it is a very important first step. I for one do not consider this a prescription that is going to catapult the United States of America into position number one. But it is an important first step, so I welcome it. I think restoring our competitive edge in this area is a must. It is an imperative. It is an urgent priority for our country because the reach is so far with broadband.

But how we do this is really going to be important and so the witnesses today I think are going to teach us something or try to instruct us. There is an example in California, the California Emerging Technology Fund, and it was established to accelerate adoption of broadband in unserved and underserved areas, and I want to extend a special welcome to Commissioner Chong, who is so highly respected in California, known nationally as an expert in telecommunications policy and the architect of the broadband map of California, which she completed in 6 months. So we need to learn from you and out of that take the lessons of how best these dollars can be applied so that we can then move on, I think, to other steps. If we bungle this, most frankly, if this $7.2 billion is bungled, I don't think the Congress and the American people are going to have confidence in our moving no to take the even larger steps for deep and broad penetration and higher speeds in our country.

So welcome to all the witnesses. It is great to see you, Commissioner Chong. And thank you, Mr. Chairman.

Mr. BOUCHER. Thank you very much, Ms. Eshoo.

The gentleman from California, Mr. Radanovich, is recognized for 2 minutes.

Mr. RADANOVICH. Thanks, Mr. Boucher. Mr. Chairman, I will pass on my opening statement for questions.

Mr. BOUCHER. Thank you very much, Mr. Radanovich. There will be 2 minutes added to your time for witness questioning.

The gentleman from Illinois, Mr. Rush, the chairman of the Consumer Protection Subcommittee, is recognized for 2 minutes.

OPENING STATEMENT OF HON. BOBBY L. RUSH

Mr. RUSH. I want to thank you, Mr. Chairman, and commend you for holding this very, very important and strategic hearing.

Mr. Chairman, if the stimulus package is going to be as effective as we think and hope it will be, Congress will play an important oversight role in its implementation. So I want to thank you again for holding hearing. My focus would be on the provision in the broadband title of the stimulus package that requires NTIA to consider whether a potential candidate for grant money is a "socially or economically disadvantaged business" as defined under section 8A of the Small Business Act. This provision was an amendment that I introduced during markup and I sincerely want to thank my

Democratic and Republican colleagues for accepting the amendment and I also want to thank you, Mr. Chairman, and Chairman Waxman and the committee staff for fighting to conserve this particular provision during conference with the Senate. This mandate is not only important to me but it is important to all the women- and minority-owned businesses out there that continue to face steep barriers when trying to compete in the telecommunications market.

Mr. Chairman, since I have been on this committee, I have insisted that more diversity is needed in this multibillion-dollar industry. I intend to closely monitor how this provision is being implemented. I do not want to see the same indifference we have seen in the past on these matters.

In this regard, I am very pleased and excited to see our former colleague and friend, Mark Seifert, at NTIA in charge of this important grant program. I want to associate my comments along with the comments of the Chairman Emeritus Dingell as it relates to Mark. Welcome, Mark. We certainly are happy to see you. Under Mark's leadership, I am confident that these grants can play a significant role in helping small, women- and minority-owned business create jobs and deliver advanced telecommunications services to the American public.

Again, I thank you, Mr. Chairman, and I yield back the balance of my time.

Mr. BOUCHER. Thank you very much, Mr. Rush.

The gentleman from Ohio, Mr. Space, is recognized for 2 minutes.

OPENING STATEMENT OF HON. ZACHARY T. SPACE

Mr. SPACE. Thank you, Mr. Chairman.

I was delighted to find that the total amount of money devoted to the expansion of broadband in unserved and underserved areas was as high as it is. It is a lot of money and the money is there for a very good cause. I come from a rural district like many other members of the committee here and we face a lot of challenges and disadvantages that oftentimes go overlooked. Whether it is access to health care, whether it is access to education and certainly access to technology, it puts us at extremely disadvantages, not just with respect to economic development, which is obviously very important, but also with respect to basic and fundamental quality-of-life issues. Certainly health care and the role that broadband plays in health care delivery is significant. Telemedicine is something that we all understand can bring quality health care to rural areas. It is a way to help bridge that gap. Distance learning, a way to bridge the gap and some of the disadvantages that rural America suffers from.

So this is an exciting and bold opportunity for us. In my district, this is a map of the State of Ohio. Connect Ohio prepared these maps. And if you will notice this large gray area in southeastern Ohio, that is my district. It is a glaring hole in Ohio and it is one that causes the people that I represent to suffer. It is one of the reasons we have some of the highest unemployment rates in the State of Ohio. We have one of the highest poverty rates in the State of Ohio. It is one of the reasons we have tens of thousands

of people who work every day yet remain in poverty, the working poor. We need to bridge that gap, and I have been working very hard to do that. We have got a great opportunity now with these stimulus funds.

The plan that I have developed is one which consists of four components. The first is expanding on the southern Ohio health care network fiber backbone that the FCC funded last year. The second stage covers the rural expanse via wireless coverage. The third is increasing industrial park connectivity and the fourth, expanding telemedicine. The limitations on my time prohibit me from expanding upon that but suffice it to say that we have received the backing and the cooperation of the governor, the numerous local development districts in the region, county commissioners. This plan covers five Congressional districts and it is absolutely vital to bring these people that we represent up to a relatively level playing field.

I also look forward to working with Mr. Seifert, and while we have not met, I am well aware of your qualifications and would echo what Chairman Rush and Chairman Dingell have already iterated about your qualifications, and I thank you, Mr. Chairman, and apologize for extending my time.

Mr. BOUCHER. Thank you very much, Mr. Space.

The gentleman from Michigan, Mr. Stupak, chairman of the Oversight Subcommittee, is recognized for 2 minutes.

OPENING STATEMENT OF HON. BART STUPAK

Mr. STUPAK. Thank you, Chairman Boucher, for holding this hearing. I would like to start off by expressing my thanks to RUS and NTIA staff, especially our witnesses David Villano and Mark Seifert, who came to Capitol Hill this past Monday to speak at the first Rural Caucus staff briefing. I would also like to thank Chairman Waxman's staff for accommodating the Rural Caucus by providing this hearing room and thank Congressman Terry for co-chairing the Rural Telecommunications Taskforce with me and for his help in putting together this briefing.

As co-chairs of the Rural Telecommunications Taskforce, we felt it was important to have the Administration provide rural members with an early opportunity to hear the latest developments in the broadband stimulus program. Nearly 100 Congressional staff members turned out for the briefing, demonstrating a high level of eagerness and anticipation from rural America. That is because broadband access gives our businesses the ability to compete in a global economy, gives our students an education for tomorrow's workforce and it gives our health care facilities the ability to provide better health care through telehealth.

Broadband access is as fundamentally important to quality of life in today's world as electricity was in the 1930s. It is a utility for my constituents, not a luxury. So it is my hope with more than $7 billion in funds we have provided to the Departments of Commerce and Agriculture, that we can take a significant step forward in reaching universal access. I fully believe that we should implement this program effectively. It will lay a foundation for our country's economic recovery as well as its future prosperity. I look forward to discussing with our witnesses how we can work together to effectively deploy throughout our Nation.

Mr. Chairman, thank you for holding today's hearing. I was down at the cable show, as I know many of our other colleagues were, and they have already spent the money a couple times over in the Economic Recovery and Reinvestment Act but that will be our decision to see how it is implemented and I hope we do it effectively, and the cable show is quite interesting and they gave us their view of it but we have to be efficient and make sure that the money is used efficiently and conveniently for all Americans, especially those of us in rural areas. Thank you, Mr. Chairman.

Mr. BOUCHER. Thank you very much, Mr. Stupak.

The gentleman from Massachusetts, Mr. Markey, former chairman of this subcommittee, is recognized for 2 minutes.

OPENING STATEMENT OF HON. EDWARD J. MARKEY

Mr. MARKEY. Thank you, Mr. Chairman, so much and thank you for having this hearing, and welcome back to Mark Seifert. We welcome you to the place where you served so well and so long, and actually I think you are in the right place right now. You can now implement a lot of the things that we were doing on this committee over the last 2 or 3 years and there is no one better qualified than you, and Commissioner Chong and all the rest of our distinguished panelists, thank you for being here as well.

You know, one of the things that unfortunately was lost over the last 8 years was that broadband deployment and speed, access and pricing is really a proxy for an economy of a country and we dropped from number two to number 15 in the world during that 8-year period. Unfortunately, that has a correlation with the path that our economy has taken and so this stimulus bill was a way for us to look at a plan that we could put together to ensure that the unserved and the underserved, rural and urban, were dealt with in a way that gave them access to this essential tool in the economic growth of our country so that their skill sets could be used in the best possible way. And that is why, you know, the $350 million which is in this bill to do a map of America. What is the broadband map of our country? What is our problem? Who has it? Who doesn't? What is the speed? How much does it cost? Where is it? That $350 million is essential to just diagramming the program, the problem that we have, and when we complete that map and this money is spent, I think we will have gone a long way towards solving the problem, and I think Mr. Chairman, making this a top priority is really just part of your vision for this subcommittee and I think that the implementation of this bill, its oversight will largely determine long-term American competitiveness and I thank you for holding the hearing.

Mr. BOUCHER. Thank you very much, Mr. Markey.

The gentleman from Washington State, Mr. Inslee, is recognized.

Mr. INSLEE. I will waive, Mr. Chair. Thank you.

Mr. BOUCHER. Mr. Inslee waives his opening statement, and the gentleman from New York, Mr. Weiner, is recognized for 2 minutes.

Mr. WEINER. I waive my opening statement.

Mr. BOUCHER. Mr. Weiner also waives his opening statement.

We now turn to our panel of witnesses and I again want to welcome each of them to our subcommittee this morning and commend

you at the outset on the outstanding work you are doing at the agency level in order to implement the Recovery Act. Mr. David Villano is the assistant administrator of the Telecommunications Program and Rural Development for the Department of Agriculture. Mr. Mark Seifert, who has been acknowledged in his presence here by many members of this subcommittee, and I want to add my thanks to Mr. Seifert for his outstanding service when he was here in the Congress and congratulate him upon his new position. I agree with Mr. Markey, he is very well situated in this new role. He is the senior policy advisor for the National Telecommunications and Information Administration. He was previous staff for this subcommittee as a detailee from the FCC. Mr. Scott Deutchman is acting senior legal advisor at the Federal Communications Commission. The Honorable Rachelle Chong is a commissioner of the California Public Utilities Commission. Ms. Nicol Turner-Lee is the senior vice president of external affairs at One Economy. Mr. Brian Mefford is chairman and CEO of Connected Nation. And I want to welcome my constituent and close personal friend, Mr. Jonathan Large, who is a member of the Patrick County Board of Supervisors in southwestern Virginia representing the Dan River District and has a truly compelling story this morning about how current restrictions within the existing grant programs have disqualified a community from receiving broadband where the vast majority of residents in that community do not have access to that service. It is a cautionary tale that suggests to us that better standards are needed as we go forward with the new stimulus program.

Without objection, the prepared written statements of all of our witnesses will be made a part of the record. We would welcome your oral summaries and ask that you keep those summaries to approximately 5 minutes so that we will have time for questions. Mr. Villano, we will be happy to begin with you.

STATEMENTS OF DAVID VILLANO, ASSISTANT ADMINISTRATOR, TELECOMMUNICATIONS PROGRAM, RURAL DEVELOPMENT, U.S. DEPARTMENT OF AGRICULTURE; MARK SEIFERT, SENIOR POLICY ADVISOR, NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION; SCOTT DEUTCHMAN, ACTING SENIOR LEGAL ADVISOR, FEDERAL COMMUNICATIONS COMMISSION; HON. RACHELLE CHONG, COMMISSIONER, CALIFORNIA PUBLIC UTILITIES COMMISSION; NICOL TURNER-LEE, SENIOR VICE PRESIDENT, EXTERNAL AFFAIRS, ONE ECONOMY CORPORATION; BRIAN MEFFORD, CHAIRMAN AND CEO, CONNECTED NATION; AND JONATHAN LARGE, DAN RIVER DISTRICT SUPERVISOR

STATEMENT OF DAVID VILLANO

Mr. VILLANO. Thank you, Chairman Boucher, Ranking Member Stearns and members of the subcommittee for the opportunity to discuss USDA's telecommunication program and in particular implementation of the broadband provisions of the American Recovery and Reinvestment Act of 2009.

Rural broadband is of vital importance to expanding economic opportunity and improving the quality of life in rural America as well as improving the U.S. economy as a whole. We appreciate the continuing support of the President and Congress for that mission through the provision of $2.5 billion in ARRA funding as well as over $1 billion in fiscal year 2009 appropriations for existing telecommunications programs.

USDA Rural Development has extensive experience in supporting rural communities with critical infrastructure and economic development initiatives. We administer over 40 programs, providing funding for water and wastewater, electric, telecommunications, housing, essential community facilities, renewable energy and business development. At Rural Development, we are truly committed to the future of rural communities.

2009 marks the 60th anniversary of USDA's telecommunications programs. Since the program began in 1949, USDA has provided over $20 billion in telecommunications loans and grants in rural America. As with electricity under the REA, there was a need for a low-cost source of financing to enable rural telephone companies to affordably serve low-density areas. USDA loans achieve that goal, thus improving significantly the quality of life for rural residents and facilitating economic development in rural communities. Rural broadband is the next evolution of the 60-year commitment to rural America. It is as essential to rural businesses and economic development today as was the provision of rural electric and telephone service in an earlier era.

Currently, USDA administers four major telecommunication loan and grant programs with a $4 billion portfolio. These programs include our Infrastructure Loan Program, our Broadband Loan Program, Community Connect grants, and distance learning and telemedicine loans and grants. All these programs create or leverage investment in broadband infrastructure. Since 1993, we have required that all telecom infrastructure that we finance be broadband capable. Because of this investment, our rural telephone borrowers have widely deployed broadband service in their service territories.

In 2001, we implemented a pilot broadband program and in both 2002 and 2008 Rural Development received authority under the Farm Bill to administer a broadband loan program. Despite our experience, Rural Development has challenges in implementing our broadband program. The historical model provided by the electric and telephone programs did not translate easily to broadband. Rural electric and basic telephone service were built out in an earlier era of relatively stable technologies and a natural monopoly environment and on the realized assumption of essentially 100 percent take rate. All these factors are quite different in the 21st century broadband arena.

As a result, both our staff and the service providers had a steep learning curve. We recognized these challenges and published a proposed rule in May of 2007. This rulemaking action, however, was delayed to the 2008 Farm Bill legislation which proposed significant changes to the program. Our new regulations implementing the 2008 Farm Bill have been drafted and are in departmental clearance. This rulemaking action will address the changes presented in the 2008 Farm Bill and the challenges identified by

the industry, Congress, our inspector general and our own internal analysis. We expect these regulations to be published as an interim final rule within the next 60 to 90 days.

Despite these challenges, we are pleased to report that our programs have had countless success bringing broadband service to remote, rural and unserved areas, for example, Rose Hill, Virginia. We provided a broadband grant to serve this community with a population of 714 individuals in the central Appalachian Mountains of southwestern Virginia. The project provided fiber to this unserved and very isolated area. The results to date, we have had more than 450 participants that have attended computer and Internet training workshops at the community center that was funded by the project and more than 115 households and businesses have been connected with broadband service.

Another example is the Havasupai Reservation, which is located in a remote rural area at the southwest corner of the Grand Canyon. Mail and food for the reservation are brought into the canyon by mule trains several times a week. The Havasupai Tribe was awarded a Community Connect grant in 2004. The grant also funded construction of a community center which provides free broadband service to trial members. The Supai Canyon had a flash flood in 2008 and communication between the tribe and the outside world relied heavily on broadband service made possible with this grant.

One of our latest loans in our broadband program is IBEC. IBEC was awarded loans to work with rural electric cooperatives to install broadband over power lines to provide Internet access to thousands of rural residents in six States across the United States. Recently IBEC started providing support to the Cullman Electric Cooperative for their smart grid project using broadband over power line at a substantial cost savings over previous methodology. IBEC has also recently entered into a partnership with IBM to further advance its cutting-edge technology to the smart grid.

At Rural Development, we have the experience, staff and processes in place to implement the Recovery Act within the challenging timeframes provided. Not only do we have dedicated Rural Utilities staff, we also have thousands of dedicated Rural Development personnel throughout rural America ready to assist with the delivery of this program, and we are not going to do it alone. We have been working very closely with NTIA and FCC on a comprehensive approach. We are confident that together with our partners we will deliver a new program that will successfully deploy broadband service in rural America. Mark Seifert from NTIA is going to talk a little bit of our joint efforts, our public meetings and our request for comments but I can assure you that we are working very closely with NTIA and FCC in deploying this program.

Thank you for the opportunity to discuss Rural Development's implementation of the broadband provisions of the Recovery Act and we welcome any questions of the committee.

[The prepared statement of Mr. Villano follows:]

Statement of
David J. Villano
Assistant Administrator for Telecommunications Program
U.S. Department of Agriculture, Rural Development

Hearing on "Oversight of the American Recovery and Reinvestment Act: Broadband"

Subcommittee on Communications, Technology and the Internet
9:30 a.m. Thursday, April 2, 2009
2322 Rayburn House Office Building

Statement of
David J. Villano
Assistant Administrator for Telecommunications Program
U.S. Department of Agriculture, Rural Development
Before the Subcommittee on Communications, Technology and the Internet
U.S. House Committee on Energy and Commerce
April 2, 2009

Thank you for the opportunity to discuss the Rural Utilities Service's Telecommunication Program and in particular, implementation of the broadband provisions of the American Recovery and Reinvestment Act of 2009 (ARRA).

Rural broadband is of vital importance to expanding economic opportunity and improving the quality of life in rural America, as well as improving the U.S. economy as a whole. We appreciate the continuing support of the President and Congress for that mission through the provision of $2.5 billion in ARRA funding, as well as Fiscal Year (FY) 2009 appropriations that supports over $1 billion in loans and $48 million in grants for the existing telecommunications programs.

History
At USDA Rural Development, we have decades of experience supporting rural communities through critical infrastructure and economic development assistance. We administer over 40 programs providing funding for water/wastewater, electric, telecommunications infrastructure; housing; community facilities; and business development. We finance everything from one ambulance for a small town up to billion-dollar investments in electric infrastructure that will benefit thousands of homeowners and businesses.

This year marks the 60th anniversary of United States Department of Agriculture's (USDA's) telecommunication programs. Since the program began in 1949, USDA has provided over $20 billion in telecommunication loans and grants in rural America. In 1949 many rural communities lacked basic telephone service; only 39% of rural Americans had even minimal service, and most rural residents had to share party lines with their neighbors. As with electricity under the Rural Electrification Administration (REA), there was a need for a low-cost source of financing to enable rural telephone companies to affordably serve low density areas. USDA loans met that need, thus significantly improving the quality of life for rural residents and facilitating economic development in rural communities.

Rural broadband is the next iteration of this 60 year commitment to rural America, and it is as essential to rural businesses and economic development today as was the provision of electric and telephone service in an earlier era.

Current Programs
USDA currently administers four major telecommunication loan and grant programs, with a $4 billion portfolio. These programs include:

- Infrastructure Loan Program
- Broadband Loan program
- Community Connect Grants
- Distance Learning and Telemedicine Loans and Grants

All of these programs create or leverage investment in broadband infrastructure. Since 1993, we have required that all telecommunications infrastructure that we finance be broadband capable. Because of this investment, our rural telephone borrowers have widely deployed broadband services in their service territories.

We also have funded Distance Learning and Telemedicine projects that provide improved healthcare and educational opportunities to rural residents.

Starting in 2002, we implemented an additional program for broadband infrastructure as authorized under the 2002 Farm Bill and reauthorized under the 2008 Farm Bill.

- This program has made $1.3 billion in loans to provide funding that supports broadband service to more than 885,000 households in 1,974 communities.
- We also have provided $84 million in grant funding to support broadband in the neediest, most rural, unserved communities.

We have had extensive on-the-job training when it comes to rural broadband. The unique challenge in rural America is, again, the provision of service in low density areas that tend to be underserved or bypassed entirely by commercial providers. Rural Development is a major source of financing for broadband in rural America. This began with our pilot program in 2001, and continues today with our Farm Bill program that was reauthorized by the 2008 Farm Bill.

Success Stories
Rose Hill, VA: USDA provided a broadband grant ($506,048) to serve the community of Rose Hill, population 714, located in the central Appalachian Mountains of southwestern Virginia. The project provided fiber optic to this unserved community that had no broadband service. More than 450 participants have attended computer and internet training workshops at the computer center funded by the project. To date, more than 115 households and businesses have been connected with broadband service. Rose Hill is an isolated community and the completion of this project has been an asset to the community. This project has given the citizens a community center to be proud of, a location to improve their education and quality of life, and a location for local students to have access to the world via the computer and internet.

Havasupai Reservation: The Havasupai Reservation is located in the Supai Canyon, in Arizona - a remote area near the southwest corner of the Grand Canyon. The area is so remote that mail and food for the reservation are brought into the canyon by mule train several times a week and by helicopter usually once a week.

A Community Connect Broadband grant, awarded in 2004 to the Havasupai Tribe, allowed the community center to provide free service to the tribe. Tribal members can be seen sitting on the steps of the community center with their laptops accessing the internet. During the school holiday, most of the students spend their time in the community center.

When the Supai Canyon was flooded in August 2008 the telephone system became unstable. Due to this, communication between the tribe and the outside world relied heavily on the broadband service. Since most of the Tribe members were evacuated out of Supai, the Tribe had only a handful of employees in the village to manage the situation. Documents needed to be drafted off-reservation and emailed to the Tribal Council office in the canyon. In addition, the Tribe posted the flood documents on its website. Without the Community Connect Broadband grant, none of this would have been possible.

International Broadband Electric Communications (IBEC): IBEC was awarded a broadband loan to work with rural electric cooperatives to install broadband to provide Internet access using power lines to thousands of rural communities in 13 states across the U.S. Recently IBEC started providing support to the Cullman Electric Cooperative for their smart grid project using their Broadband Over Power Line network at substantial cost savings over the previous methodology.

Issues with the Current Broadband Loan Program

Criticisms

We have made mistakes along the way but we have worked diligently to correct errors and improve our program. We quickly discovered that the historical model provided by the electric and telephone programs does not translate easily to broadband. Rural electric and basic telephone service were built out in an earlier era of relatively stable technologies, in a natural monopoly environment, and on the realized assumption of an essentially 100% take rate. All of these factors are quite different in the 21st century broadband arena.

As a result, both our staff and the service providers trying to participate in the program had to climb a steep learning curve. We recognized these difficulties ourselves, as well as other problems with the existing regulations, and moved more than two years ago to address them with a Proposed Rule, published in May 2007, seeking comments from interested parties, that:

- clearly defined served, underserved, and un-served markets based on service availability and the number of existing competitors;
- targeted funding to un-served and underserved areas;
- provided applicants with a clear definition of which communities are eligible for funding;
- established equity requirements that provide incentives for serving the un-served;
- reduced market survey requirements;
- increased application transparency through web-based information dissemination; and
- imposed new time limits for timely deployment of services to rural customers.

This rulemaking process was delayed in light of the new Farm Bill legislation which amended the statutory requirements, in a large part to address these same concerns. However, we are aggressively working regulations that will reflect the provisions of the 2008 Farm Bill.

Importance of Broadband

The importance of broadband to rural America was reaffirmed by Congress when it reauthorized Rural Development's broadband programs under the 2008 Farm Bill. And now we have been given the opportunity to provide additional funding under the Recovery Act.

As President Obama and Secretary Vilsack have stated, American families and businesses need access to broadband for economic competitiveness and improved quality of life. There are still areas where access to affordable, reliable broadband services is not available. Many communities - including in rural areas and low-income areas – suffer the impact of not having home Internet access for business and educational purposes, social interaction, economic development, improved healthcare, and community involvement. With broadband, American companies can compete on a global basis, jobs are created and retained in local communities, and rural children can obtain the same education as their urban and suburban counterparts through services such as distance learning.

The ARRA broadband initiative provides a unique opportunity to accelerate the deployment of broadband in rural areas.

Implementation of the ARRA

Staff Expertise

Because of the six years we have devoted to developing and refining the broadband loan program, USDA is well-positioned to implement ARRA within the challenging time frames demanded by the statute.

We have a seasoned staff that has developed a great deal of expertise in broadband technologies and gained invaluable experience in working with service providers. We understand the barriers and we have systems and processes in place that can be leveraged. We intend to move quickly to identify the appropriate eligibility requirements for applicants and projects. Our Rural Development state offices work with local community leaders and state governments to meet the needs of the rural residents and businesses in their states, and will be instrumental in implementing the program by providing outreach and technical support.

Coordination with NTIA and FCC

We are also coordinating our broadband program with the National Telecommunications and Information Administration (NTIA) and the Federal Communications Commission (FCC) so that a comprehensive approach is taken. In addition, we will be sharing the results of this investment with you on Recovery.gov so that Members of Congress and the general public can see how this program achieves its goals. We are coordinating with the FCC and NTIA in developing definitions of broadband, unserved and underserved, broadband mapping, and the overall U.S. broadband strategy.

On March 12, 2009 we jointly issued a request for information (RFI) with the NTIA on issues related to implementation of the broadband funding under the ARRA. In keeping with President Obama's commitment to a transparent, collaborative, and participatory style of government, USDA and NTIA have pursued extensive public comment to inform our implementation of the ARRA. The public has been invited to comment on the specific issues raised in the RFI or any other issues related to implementation of the ARRA. Six public meetings have been held, one each in Las Vegas and Flagstaff, Arizona, and four in Washington, D.C. The record remains open for written comment until April 13, 2009.

Details of the Program

Of the $7.2 billion in broadband funding authorized by ARRA, USDA received $2.5 billion to deliver a new program with flexible authorities to help deploy broadband service in rural America. The new Recovery Act program is of limited duration and will operate concurrently with our four existing broadband-related telecommunications programs.

The Recovery Act funding is intended to make it economical to deploy broadband even to the most remote, least populated areas of the country. The Federal government will provide incentives that will help service providers identify the most underserved areas and work with local community leaders to deploy broadband. Under credit reform, we plan to leverage these resources into a flexible loan and grant program in order to generate even greater resources for broadband deployment.

Since we are in a public comment period, I will not be discussing in detail what the Recovery Act program may look like. However, the key elements of this new program as defined by the Act are:

75 percent of the area to be served by a project shall be in a rural area without sufficient access to (a) high speed broadband service to (b) facilitate rural economic development.

Priority shall be given to:

- Projects that will deliver end users a choice of more than one service provider;
- Projects that provide service to the highest proportion of rural residents that do not have access to broadband service;
- Projects that commence immediately upon approval.

Timeline

Within 60-days of the end of the public comment period on April 13, 2009, we intend to publish a series of Notice of Funding Availability (NOFAs) in the Federal Register seeking applications for USDA assistance. We anticipate approximately 3 NOFAs. Timing on the subsequent NOFAs will be dependent upon results from previous NOFAs and our coordination with NTIA and FCC as we deploy funds. This implementation plan is subject to modification based on analysis of public comments.

The NOFAs will include:

- The amount of funding available
- Applicant, Area and Project eligibility requirements
- The application process
- The application window
- Evaluation (scoring) criteria
- The reporting requirements for borrowers/grantees

We will be providing information and support to applicants through our Field Staff, webinars, and outreach workshops. We will coordinate with NTIA and other Federal agencies, local and state government, and rural stakeholders to make sure we reach as many prospective applicants and other interested parties as possible.

Thank you for this opportunity to testify. I look forward to your questions.

Mr. BOUCHER. Thank you very much, Mr. Villano.
Mr. Seifert.

STATEMENT OF MARK SEIFERT

Mr. SEIFERT. Chairman Boucher, Ranking Member Stearns, Chairman Emeritus Dingell and members of the subcommittee, it is indeed a pleasure and honor to appear before you this morning. You have some of the finest staff on the Hill, and I have great affection and respect for my friends and colleagues on this subcommittee.

Thank you for this opportunity to testify on the implementation of the Recovery Act's Broadband Technology Opportunities Program, or as we call it, BTOP. President Obama believes in the transformative power of broadband. Broadband is about jobs. It serves as an engine of economic development, enabling communities and regions to develop and expand job-creating businesses and institutions. Through the BTOP grant program and in coordination with the Department of Agriculture's grants and loan programs, we are taking a critical first step in realizing President Obama's vision of broadband for all of America.

The Administration has set five goals for the broadband stimulus funding. First, we want to create jobs. Second, we want to begin to close the broadband gap in America by bringing high-capacity pipes closer to users in rural, remote and underserved communities. The Administration and Congress agree that the public interest requires these publicly funded high-capacity pipes should operate in conformity with basic principles of openness which will spur competition and bring better service to more people and businesses. Third, we want to stimulate investment by requiring grantees to invest their own funds. We want broadband grant applicants to look to other sources of Recovery Act funds to find synergies such as those at HUD, HHS or the Department of Energy. Fourth, these grants should ensure that more anchor institutions have high-speed access, anchor institutions like schools, libraries, community colleges, hospitals and public safety. And finally, we want to encourage the demand for broadband. When more people understand how broadband access can help them find new ways of making a living, we are sure they are going to want to have it for themselves.

Now, the statute provides several important goals for BTOP such as accelerating broadband deployment in underserved and unserved areas, improving access for public safety, providing funds for broadband education, awareness, training, access and support to anchor institutions as well as to those organizations that provide broadband assistance to vulnerable populations, the access that we should also stimulate demand for broadband economic growth and job creation, and as directed by the Act we are consulting with the States. We are also consulting with the FCC about a variety of issues including the very important project which many of you have mentioned in your statements, our national broadband mapping program. We are working closely with our colleagues at RUS to make these programs as seamless as possible for applicants. We believe accountability is extremely important.

One of our first actions was to transfer the $10 million to the IG and his staff. We want to ensure that the program design incorporates appropriate safeguards to protect taxpayers' investment including measurements of success for both individual applicants and for the program overall. Because these grants will not resolve all of the issues of broadband deployment, we envision these grants as a test bed or a proof of concept for sustainable, viable and scalable projects. We are encouraging partnerships between small businesses, municipalities and others that may demonstrate non-traditional but effective ways of getting broadband into communities. When the economy recovers, and it will, these proof-of-concept projects should show future investors the way forward.

Now, public input is critical to the success of this program. We have asked the public how they believe we should invest their money in the program. We also want to give the public maximum visibility into the results. To that end, we have held six public meetings and two in the field at Las Vegas and Flagstaff. These meetings were webcast and those that could not attend in person or via the Internet could join us on a teleconference. We have an active public comment cycle, which closes April 13. As part of our efforts toward great transparency, detailed information about both the applications and the awards will be posted on our website. The NTIA is currently staffing up to address this responsibility. We are adding to our core team of experts, who have significant grant-making experience, and we are standing up the technical systems to handle a large volume of applications.

We anticipate publishing our final rule, known as a Notice of Funds Availability, or NOFA, in the next few months. The NOFA will describe the application process, the evaluation criteria and grantees' reporting responsibilities. We are contemplating three waves of funding spread out over the next 18 months. We believe this approach will afford the greatest number of applicants an opportunity to participate.

Now, we face many challenges in the upcoming months. By far, our greatest challenge, however, will be the selection of those projects that would be funded. Our task is to design a program that is transportable, fulfills the statute's goals and that results in grant projects that wisely invest the people's money to create jobs and offer models of future investment to accelerate the deployment of broadband.

We are committed to ensure that BTOP funds are awarded and distributed in a prompt, fair and efficient manner. We look forward to getting stimulus funds into the hands of those who can use them to create new jobs and promote broadband deployment in unserved and underserved areas.

Thank you, and I look forward to your questions.

[The prepared statement of Mr. Seifert follows:]

Testimony of Mark G. Seifert
Senior Advisor to the Assistant Secretary
National Telecommunications and Information Administration
U.S. Department of Commerce

Before the

Subcommittee on Communications, Technology, and the Internet
Committee on Energy and Commerce
U.S. House of Representatives

Hearing on
"Oversight of the American Recovery and Reinvestment Act of 2009: Broadband"

April 2, 2009

Chairman Boucher, Ranking Member Stearns, and members of the Subcommittee, thank you for your invitation to testify this morning on behalf of the National Telecommunications and Information Administration (NTIA) on implementation of the Broadband Technology Opportunities Program (BTOP) set forth in the American Recovery and Reinvestment Act (Recovery Act or Act). We see this as the first step in realizing President Obama's vision of bringing the benefits of broadband technology to all Americans. At its core, the broadband initiatives in the Recovery Act offer a tremendous opportunity to stimulate job creation and economic growth in both the near-term and for the future.

President Obama believes in the transformative power of broadband. Broadband serves as an engine of economic development, enabling communities and regions to develop and expand job-creating businesses and institutions. Communications networks help improve the efficiency of virtually every sector of the economy. The Obama Administration is committed to harnessing the power of broadband technology to stimulate economic growth, create jobs, and help lay the foundation for long-term prosperity for all Americans. Through the BTOP grant program – and in coordination with the Department of Agriculture's Rural Utilities Service (RUS) grants and loans program – we are taking a critical first step in that direction.

As the Subcommittee is aware, the Organization for Economic Cooperation and Development (OECD) recently ranked the United States 15th among the 30 market economies of the OECD in terms of broadband subscribership per capita. President Obama believes that this must change. With access to broadband and the skills to use it effectively, Americans will be better able to compete, succeed, and lead in the 21st

century's knowledge-based economy. Our scientists, universities, and researchers will need better broadband connections to continue our great tradition of innovation.

The broadband initiatives within the Recovery Act mark the beginning of the process that we hope will result in the United States taking its rightful place as the world's leader in broadband deployment, availability, and adoption. To meet this challenge and to fulfill the statutory mandates of the Recovery Act, the Administration has set five goals for the broadband Recovery Act funding.

First, we want to create jobs.

Second, we want to begin to close the broadband gap in America. We, therefore, want to extend high-capacity pipes closer to users in rural, remote, and underserved communities. As Congress has instructed, other entities will be able to connect to those pipes, which will spur competition and get service to people and businesses. Communications networks are basic inputs for education, commerce, and culture, and the Administration believes that the public interest requires that, as Congress has indicated, these publicly-funded high-capacity pipes must operate in conformity with basic principles of openness.

Third, we want to stimulate investment by requiring grantees that take Federal money to invest their own funds as well. We also want to take advantage of opportunities to combine broadband investments with other sources of Recovery Act funds whenever doing so can yield a greater return on the taxpayers' investment.

Fourth, we want to start taking steps to ensure that our schools, universities, libraries, community centers, job training centers, hospitals, and public safety personnel have high-speed access. We have been asked by Congress to focus on funding high-speed connections to these community anchor institutions.

Finally, we want to encourage the demand for broadband. We think that when more people understand how broadband access can help them find new ways of making a living, they'll want to have it for themselves.

Greater broadband availability and use will make a difference in the daily lives of our citizens. With access to broadband, students are able to learn and access resources far beyond their own classrooms or local libraries. Using telemedicine applications over broadband connections, doctors and other medical professionals can bring the latest medical advancements to patients in remote areas, resulting in immediate, efficient, and cost-effective treatment. Over broadband connections, small business owners are able to buy and sell their goods and services in both near and distant markets. Researchers and scientists require high-speed connections to collaboratively develop the new ideas that will keep our country in the lead. And all Americans have the potential to find new ways of making a living, developing and accessing information, and using other applications that enrich their lives using high-speed broadband. Broadband provides communities a canvas for innovation and economic development, that, by reason of either location or economic status, they have previously been unable to utilize.

I would like to discuss some specifics of this program, including its purposes, and then describe our activities and plans to implement it.

Statutory Purposes

BTOP, created by the Recovery Act, allocates 4.7 billion dollars to NTIA for the general purpose of accelerating the deployment and adoption of broadband services. Of that, at least $250 million is available for programs that encourage sustainable adoption of broadband services, and at least $200 million is available for expanding public computer center capacity, including at community colleges and public libraries. Finally, the Act states that up to 350 million dollars may be used to implement the Broadband Data Improvement Act (Pub. L. No. 110-385) and to develop and maintain a broadband inventory map. The Recovery Act also permits NTIA to transfer funds to the Federal Communications Commission (FCC) for the purposes of creating a national broadband plan.

BTOP has many important goals. For example, the program is intended to accelerate broadband deployment in unserved and underserved areas and improve access to broadband by public safety agencies. Significantly, however, while the Act focuses on supply stimulus, demand side stimulus is a critical goal. The Act specifies that the program be designed to stimulate job creation, economic growth, and the demand for broadband. Other purposes of BTOP include providing funds for broadband education, awareness, training, access, and support to a number of institutions including schools, libraries, educational and job-creating strategic facilities, as well as organizations that provide outreach and other broadband assistance to vulnerable populations.

In accomplishing the purposes of BTOP, the Act contemplates that NTIA will consult with the states and with the FCC. We are also coordinating our activities with the RUS, which was allocated $2.5 billion in broadband Recovery Act funding for loans and

grants. We have been meeting regularly with various state entities as well as with our colleagues at the FCC and RUS and have met with various state entities as well. For example, we are currently talking to RUS about creating a common application form to make it easier for entities to file grant applications with both agencies. We welcome - and indeed are actively seeking - the input of our state colleagues as well as our colleagues at the FCC and RUS as we implement this important program.

The Act also provides $10 million for our Inspector General (IG) to ensure vigorous oversight of these grant funds. One of the very first actions we accomplished was the transfer of that money to the IG. We have been meeting with the IG and his staff to ensure that the program design incorporates appropriate safeguards from the outset to protect the taxpayers' investment.

One of the biggest challenges we will face is deciding which applications to fund. Fortunately, the Act gives NTIA some guidance in this area. For example, in the case of infrastructure grants, the Act specifies that we consider: whether an application will increase the affordability of, and subscribership to, service to the greatest population of users in an area; whether the application will enhance service for health care delivery, education, or children to the greatest population of users in an area; and whether it will not result in unjust enrichment as a result of support from another Federal program in the area. The Act also directs us to consider other important factors, such as whether the applicant is a socially and economically disadvantaged small business concern and whether the application will provide the greatest broadband speed possible to the greatest population of users in an area.

To put this in context, we anticipate receiving applications that will allow people who live in unserved and underserved areas to work online at speeds that permit videoconferencing. We hope to see applications that propose to make broadband available for smart grid technology and health information technology applications. We want applications that will provide researchers and scientists at universities and other institutions the broadband connectivity they need to compete with the rest of the world. Schools, universities, libraries, community centers, job training centers and hospitals are all community anchor institutions that need broadband connectivity. We view these grants as a test-bed or proof of concept for sustainable, viable, and scalable projects. For example, we encourage partnerships between small businesses, municipalities, and others that may demonstrate nontraditional but effective ways of getting broadband into communities. These grants will not be just for large companies. When the economy recovers, these projects should show future investors the way forward. By spending $4.7 billion on projects that are tested and scalable, we will be taking one step closer to realizing President's Obama's vision of a 21st Century communications infrastructure for everyone in America.

BTOP Implementation Activities

With regard to our implementation efforts thus far, openness and transparency have been our guiding principles. NTIA believes that the public should have unprecedented visibility into how its money will be spent through BTOP. To that end, NTIA has developed a robust process for allowing for public input into how NTIA can effectively and efficiently administer BTOP. NTIA's goal is to develop the highest

caliber grant program, with maximum input from diverse stakeholders, and to award grants to high quality projects that further the Act's purposes.

Demonstrating our intention to work collaboratively in implementing BTOP, on March 10th, senior officials from the Department of Commerce, the Department of Agriculture and the FCC held a "kick off" public meeting at the Commerce Department. Nearly 600 people attended the meeting in person and thousands more participated via a live web stream and teleconference. The meeting signaled the keen interest shared by the Department of Commerce, the Department of Agriculture, and the FCC in working together and in providing the public multiple opportunities to help shape the programs to benefit consumers throughout the country.

Concurrent with the announcement of the public meetings, on March 12, 2009, NTIA and RUS published a joint request for information (RFI). Public comments will be accepted in response to this RFI through April 13th. In the RFI, NTIA and RUS outlined 20 broad topics on which information is being sought, as well as inviting comments on issues not specifically addressed in the RFI.

The March 10th kickoff meeting was followed by a series of four public meetings in Washington, D.C., and separate field hearings in Flagstaff, Arizona, and Las Vegas, Nevada, to provide the public additional opportunities to weigh in on various aspects of the program, including technical, legal, programmatic, and process-related issues. All told, nearly 120 panelists—including representatives from consumer and public interest groups, state and local governments, tribal governments, minority and vulnerable populations, industry, academia, and other institutions—provided invaluable insights

about how to make these programs effective, equitable, and efficient. The meetings were all webcast. In addition, those that could not attend in person or via the Internet were invited to participate via teleconference.

Each session provided a diverse set of panelists an opportunity to present views about the specific issue, to interact with other experts on the panel and to receive questions or comments from the public that attended the meeting. In addition, members of the public emailed questions and also asked questions via teleconference. This robust approach to public comment will ensure the involvement of taxpayers in the design and implementation of the broadband initiatives in a way that gets Recovery Act dollars out to the public as quickly as possible to promote job creation and broadband development and deployment.

Since the passage of the Recovery Act on February 17, 2009, NTIA has taken decisive action to jumpstart the Broadband Technology Opportunities Program. The Agency is staffing up to administer the $4.7 billion program. Although NTIA has many talented people already in place with significant grant-making experience, we are in the process of greatly supplementing this core team to handle the high levels of interest. We are also in the process of creating the technical systems that need to be in place to handle the tremendous volume of applications that we anticipate.

We are coordinating closely with other agencies responsible for implementing related Recovery Act initiatives, such as the Department of Housing and Urban Development, the Department of Health and Human Services, and the Department of Energy. Through constructive coordination, funds and expertise can be leveraged where

appropriate—and duplication and redundancy will be avoided to maximize the utility of taxpayer dollars.

NTIA has launched its BTOP website to provide the public a window into how the Government intends to invest its money - http://www.ntia.doc.gov/broadbandgrants. Information and updates about the broadband grants initiative will be made available via NTIA's website. For example, currently the public can access archived videos and transcripts from our five public meetings and two field hearings. We are also posting the written comments as they are submitted to NTIA on this website in the interest of maximizing transparency. Moving forward, we will be posting critical funding information, including recipient and fund use data to accurately track, monitor and report on taxpayer funds.

NTIA intends to be "open for business" for prospective grantees in the most expeditious timeframe practicable. A Notice of Funds Availability (NOFA) will be published as expeditiously as possible, likely in the next couple of months, that will describe in detail how the application process will work, how we will evaluate the applications, as well as how grantees will be held accountable, including requirements concerning progress reports and job creation measurements, to ensure that taxpayer investments are protected. NTIA is currently contemplating three waves of funding to allow applicants who may not be ready at the beginning of the grant program to participate in later waves. We anticipate the first awards will made in early fall 2009, with the second wave of applications beginning thereafter. We have tentatively scheduled the third wave of applications to begin in the spring of 2010 in order to issue our final round of awards before the statutory deadline of September 30, 2010.

We believe that having multiple opportunities for organizations to apply is equitable and effective. Some applicants will be ready to go from the beginning of the program while others will need more time to undertake planning activities, develop business plans, map broadband availability and build the necessary partnerships to assure project sustainability. These activities may take some applicants months to complete. Additionally, applicants that do not succeed in the first round may consider retooling their application and possibly submitting it jointly along with other applicants in later rounds. Simply put, multiple rounds affords both the NTIA and applicants a dynamic and iterative process whereby we are able to ensure that the money, when fully deployed, meets all of the Congressional purposes.

Challenges Ahead

We face many challenges in the upcoming months. Some of our challenges are substantive policy issues. For example, there are a host of statutory terms like "broadband," "unserved," and "underserved" that we must define in order to give guidance to potential applicants. We must also decide the scope of the consultative role the states will play as we review grant applications. During our public meetings, various stakeholders gave us very valuable but divergent views about how we should deal with these issues and we are confident that the comments filed by April 13, 2009, in response to the RFI, will contribute greatly to our decision-making on these important threshold issues. We are very focused on creating metrics and requiring reporting that will allow us to understand whether the grants we make are effective in moving the country closer to the Administration's broadband goals.

While these challenges will be significant, by far our greatest challenge will be determining a fair, equitable, and appropriate manner for selecting grant recipients. We fully expect a pool of strong and innovative applications that reflect the genius of the American people and together address all of the purposes set out in the Act. Our most daunting task will be to select from among these many deserving applications those that most wisely invest the people's money to create jobs and offer credible, functioning, and scalable models for accelerating the deployment of broadband.

Congress has entrusted us with a significant responsibility. We intend to rise to the occasion by crafting a grant program that uses the public's funds wisely, efficiently, and effectively – both to create jobs and to spur economic development.

Conclusion

In conclusion, NTIA is committed to ensuring the BTOP funds are awarded and distributed in a prompt, fair, and efficient manner. Through our work with RUS and the FCC, we intend to move forward in a coordinated and effective manner that encompasses the public's desires for this program. We have a lot of work ahead of us in the upcoming months. Nevertheless, we look forward to getting Recovery Act funds into the hands of those who can use it to create new jobs and promote broadband deployment in unserved and underserved areas. Each of us, no matter where we live or what our individual circumstance may be, deserves to enjoy all of the promises that robust broadband service has to offer, and we see this program as an important step in that direction.

Thank you and I look forward to your questions.

Mr. BOUCHER. Thank you very much, Mr. Seifert.
Mr. Deutchman.

STATEMENT OF SCOTT DEUTCHMAN

Mr. DEUTCHMAN. Thank you. Good morning, Chairman Boucher, Ranking Member Stearns and members of the subcommittee. I am pleased to be here to discuss the Commission's role in the broadband programs established in the American Recovery and Reinvestment Act of 2009.

I first want to commend the subcommittee, Congress and the President for recognizing the importance of broadband to our Nation at this critical time. As the country seeks to maintain, restore and develop its infrastructure, it is imperative that we look towards building out broadband, which is the infrastructure we need to succeed in the Digital Age. As FCC Acting Chairman Copps like to say, broadband is the great infrastructure challenge of our time, and the Commission is pleased to be starting down the road toward meeting this challenge.

I also want to thank you for recognizing the substantial expertise of the Commission and its staff when it directed the Commission to play a consultative role in the development of the Recovery Act's grant and loan programs, and while that is a large part of the discussion already this morning, many of us at the Commission believe that Congress charged us perhaps with the most important responsibility since implementing the 1996 Telecom Act: the development of a comprehensive national broadband plan to make sure that all Americans have the benefits of affordable, high-speed broadband. At this juncture, Acting Chairman Copps would almost certainly point out, and I feel compelled to do the same, that all means everyone, whether you are rich or poor, live in a rural or urban area, underserved, unserved or on tribal lands, have a disability or a small business or a senior citizen or high school grant, ubiquitous, affordable high-speed broadband has the power to help restore our economic well-being and open the doors of opportunity for all Americans. With broadband's potential benefits for jobs, education, public safety, the environment, health care and so much more, there could not be a better time to begin developing and implementing a national broadband plan.

The Commission is moving forward simultaneously on several broadband-related fronts. Pursuant to the Recovery Act, we are lending our expertise to our colleagues at the NTIA and RUS as they implement the grant and loan programs. The Commission is currently seeking comment on the definitions that we have been asked to consult on. In addition, as required by the Farm Bill of 2008 and in coordination with the Secretary of Agriculture, Acting Chairman Copps will be preparing a report for Congress by May 22nd on a rural broadband strategy. The Commission has sought comment on these rural broadband issues as well. We very much appreciate the interagency coordination and consultation that is occurring with NTIA and RUS on all of these issues.

As we continue to refine our views, the Commission staff will be hearing from a broad array of stakeholders including public interests, private sector, governmental and consumer groups to ensure they will receive the benefit of a wide range of perspectives. The

information the Commission gleans from these efforts will undoubtedly help inform the Commission as it develops the vital national broadband plan, and this gets arguably to the most important piece of the puzzle for us. At its next open meeting on April 8th, the Commission plans to kick off its efforts to develop a national broadband plan. The acting chairman has circulated a notice of inquiry to his colleagues that is intended to be broad in scope. This is of course only the beginning of the process. The Commission among other things plans to receive input from traditional and non-traditional stakeholders, complete consumer surveys and international comparisons as required by statute, and work with federal, State and local agencies in gathering the best ideas.

By next February, the Commission will complete the tasks that Congress entrusted us with: to provide Congress and the American people with a national broadband strategy, a plan for action for meeting the broadband infrastructure challenge facing the Nation.

Thank you for the opportunity to testify today. I would be happy to answer any questions you may have.

[The prepared statement of Mr. Deutchman follows:]

STATEMENT OF SCOTT DEUTCHMAN
ACTING SENIOR LEGAL ADVISOR
TO
FCC ACTING CHAIRMAN MICHAEL J. COPPS

U.S. HOUSE COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON COMMUNICATIONS,
TECHNOLOGY AND THE INTERNET

"OVERSIGHT OF THE AMERICAN RECOVERY AND REINVESTMENT ACT: BROADBAND

APRIL 2, 2009

Good morning Chairman Boucher, Ranking Member Stearns and Members of the Subcommittee. I am pleased to be here to discuss the Commission's role in the broadband programs established in the American Recovery and Reinvestment Act of 2009.

I first want to commend the Subcommittee, Congress and President Obama for recognizing the importance of broadband to our nation at this critical time. As the country seeks to maintain, restore, and develop its infrastructure, it is imperative that we look towards building out broadband, which is the infrastructure we need to succeed in the Digital Age. As FCC Acting Chairman Copps likes to say, broadband is the great infrastructure challenge of our time and the Commission is pleased to be starting down the road toward meeting this challenge. I also want to thank Congress for recognizing the substantial expertise of the Commission and its staff when it directed the Commission to play a consultative role in the development of the Recovery Act's grant and loan programs. And while this is important, many of us at the Commission believe that Congress charged the Commission perhaps with its most important responsibility since implementing the 1996 Telecom Act – the development of a comprehensive national

broadband plan to make sure that *all* Americans have the benefits of affordable, high-speed broadband.

At this juncture, Acting Chairman Copps would almost certainly point out – and I feel compelled to do the same – that "all" means everyone – whether you are rich or poor, live in a rural or urban area or on tribal lands, have a disability, are a small business, are a senior citizen or a high school student. Ubiquitous, affordable, high-speed broadband has the power to help restore our economic well-being and open the doors of opportunity for all Americans. With broadband's potential benefits for jobs, education, public safety, the environment, health care, and so much more, there could not be a better time to begin developing and implementing a national broadband plan.

The Commission is moving forward simultaneously on several broadband-related fronts. Pursuant to the Recovery Act, we are lending our expertise to our colleagues at the NTIA and RUS as they implement the grant and loan programs. The Commission is seeking public comment on the definitions that we have been asked to consult on: broadband, unserved area, underserved area, interconnection obligations, and non-discrimination. In addition, as required by the Farm Bill of 2008, and in coordination with the Secretary of Agriculture, Acting Chairman Copps will be preparing a report for Congress by May 22 on a rural broadband strategy. The Commission has sought public comment on these rural broadband issues as well. We very much appreciate the inter-agency coordination and consultation that is occurring with NTIA and RUS on all of these issues.

As we continue to refine our views, the Commission staff will be hearing from a broad array of stakeholders, including public interest, private sector, governmental, and

consumer groups to ensure that we receive the benefit of a wide range of perspectives. The information the Commission gleans from these efforts will undoubtedly help inform the Commission as it develops the vital national broadband plan.

And this gets, arguably, to the most important piece of the puzzle for us. At its next Open Meeting on April 8th, the Commission plans to kick-off its efforts to develop a national broadband plan. The Acting Chairman has circulated a Notice of Inquiry to his colleagues that is intended to be broad in scope. This is, of course, only the beginning of the process. The Commission, among other things, plans to receive input from traditional and non-traditional stakeholders, complete consumer surveys and international comparisons as required by statute, and work with federal, state and local agencies in gathering the best ideas. By next February, the Commission will complete the task that Congress entrusted us with: to provide Congress and the American people with a national broadband strategy – a plan of action for meeting the broadband infrastructure challenge facing the nation.

Thank you for the opportunity to testify today. I would be happy to answer any questions you may have.

Mr. BOUCHER. Thank you, Mr. Deutchman.
Ms. Chong.

STATEMENT OF RACHELLE CHONG

Ms. CHONG. Good morning. I would like to thank Chairman Boucher, Congressman Stearns and the members of the subcommittee for inviting me back to Washington, D.C. I was a former FCC commissioner in the mid-1990s and it is always a tremendous personal pleasure to be back to my old stomping grounds.

California is certainly grateful for the opportunity presented under ARRA to continue our improvement of our broadband infrastructure in California. In California, we know that broadband is as important as the roads and the bridges in terms of our businesses and our people. We began with leadership from Governor Arnold Schwarzenegger. He established a broadband taskforce in 2006, and the first thing we did was, we took the initiative of doing our broadband mapping project, and if we had not done our broadband mapping project, I do not think we would have spent our broadband money as wisely as if we had not.

We also initiated two programs after the mapping project and these programs were done by my agency, the California Public Utilities Commission. The first program is a broadband infrastructure grant program called the California Advance Service Fund. The second program was the PUC's establishment of a successful nonprofit organization which we call the California Emerging Technology Fund, CETF. CETF provides grants to community-based organizations who bridge the digital divide and we got the CETF seed money, $60 million, from voluntary donations from AT&T and Verizon related to 2005 mergers.

Last Monday we held a workshop in San Francisco on the ARRA broadband provisions. We have in California a collaboration of the governor's office, the California PUC, the Emerging Technology Fund and others to get ready to submit applications. Based on our meeting, it is far to say California will have a number of shovel-ready projects ready to submit to NTIA and RUS at the right time to continue the work we have done in California.

The Recovery Act broadband programs are strikingly similar to what we have done in California. It begins with the funding of broadband maps. It is my personal view that a mapping project is a critical prerequisite to any broadband program in a State. Put very simply, a State needs to know where broadband is and where it ain't before it spends its money. I speak from experience because quite candidly, if we had undertaken our broadband program before doing our mapping exercise, I believe we would have misspent some of our funds.

I have to tell you that the mapping exercise brought some surprises to the regulators and, frankly, to the broadband providers themselves, and so I would urge the States who have not yet done a broadband mapping project to swiftly undertake one. It took us about 7 months.

Recovery Act funding is also provided for two main categories of programs: broadband infrastructure programs and programs designed to increase computer usage and adoption. I do think it is wise to pursue both paths at the same time. Some States have

done the broadband mapping and they are ready to move forward on some of the adoption programs. Other States probably will want to do their broadband mapping first and then proceed to the next step but you can proceed on both paths simultaneously. Now, we did our mapping exercise first and then we attacked adoption programs and the access problem, and on access we were trying to basically reach 1.4 million people and 2,000 little communities in California that had no service or very slow broadband service.

We do have a definition to suggest to our colleagues at NTIA and RUS and the FCC. We defined "unserved" as any area that isn't served by any form of facilities-based broadband or where Internet connectivity is available only through dial-up or satellite service. The California PUC further defined "underserved" as an area where broadband is available but no facilities-based provider offers service at speeds of at least 3 megabits per second down and 1 megabit per second up. I will talk about speed in a minute.

We established a 2-year-long .25 surcharge on our intrastate telephone revenues—it comes out to about a nickel a month—to create a $100 broadband infrastructure fund at the PUC. The PUC then told our broadband providers it would pay 40 percent of the cost of a project but we did require the applicant to match it with 60 percent. We wanted them to have skin the game. I commend your work on ARRA because you decided to give federal funds of 80 percent and suggesting a 20 percent match. Now, we have a 40 percent match level and we have seen about 50 applications at the PUC requesting about $35 million covering about 160,000 households. We have actually decided on applications that commit $9.15 million so far and we are covering about 8,800 households that have benefited. So the PUC has left a lot of money that we could use to match ARRA funds to continue our broadband work.

I asked my staff on average, how much did it cost to get to the unserved households. I thought that might be of interest to you. And as of the applications we have granted so far, and we are not done yet, it costs about on average $2,800 to reach an unserved household in California. Our program is only available to any company that holds a certificate of public convenience and necessary as a phone provider or is a registered wireless carrier. We are now looking at rules to extend our program to wireless Internet service providers, for example.

Speeds, just a quick moment. We wanted to tell you that we had used a current-generation broadband speed of about 3 megabits per second down and 1 megabit per second up. We did not make it a minimum, though, because we felt if there was an applicant who is the only applicant willing to serve an unserved area, any broadband speed was better than no broadband speed. However, we did look at speeds in terms of how we rank the applications. We did award more points for faster speeds but we did it at a diminishing level in order to favor applications that would provide current-generation speeds, 3 megabits down, 1 megabit up, over those that sought next-generation speeds but you can change the formula to have faster speeds as you go on. I have listed in my testimony the criteria that we used in our infrastructure grant program hoping that might be helpful to the federal agencies, and we did allow some transport or middle mile costs to be covered.

I also wanted to highlight the work of CETF, who is our non-profit organization, and they are focusing on the affordability and adoption issues, which are just as important——

Mr. BOUCHER. Ms. Chong, if you could wrap up, that would be helpful.

Ms. CHONG. Yes. Thank you. All I wanted to say about CETF is that they have very successfully used community-based organizations with already successful programs to bring it to the next step and we hope that the criteria that they use might be useful to our colleagues.

Thank you.

[The prepared statement of Ms. Chong follows:]

Testimony of Commissioner Rachelle Chong of the
California Public Utilities Commission
Before the Subcommittee on Communications, Technology and the Internet
Re Broadband Programs Relating to the American Recovery and Reinvestment Act
April 2, 2009

I want to thank Chairman Boucher and Congressman Sterns for the kind invitation to testify on California's broadband programs, as they relate to the American Recovery and Reinvestment Act (Recovery Act or ARRA). As a former FCC commissioner from the Nineties, it is always a pleasure to be back in the nation's Capitol, but this time wearing the hat of a commissioner of the California Public Utilities Commission (CPUC).

California is one of the nation's broadband leaders, with a broadband mapping project under our belt, a unique broadband infrastructure grant program, and a successful "digital divide" program. As the home of the technology and entertainment industries, California took these actions because we recognized that our economic development and global competitiveness depends on it. California is grateful for the opportunity presented by the broadband programs in the Recovery Act. California is waiting anxiously for the right time to put in "shovel ready" project applications. We are strongly encouraging applicants to take advantage of this "once in a lifetime" opportunity.

State Consultation

California thanks Congress for including a state consultation role for the broadband programs in the Recovery Act. States with deep broadband expertise like California should have the ability to make recommendations on applications for its state. With a broadband mapping exercise completed in 2006 and as updated with our infrastructure program data, California authorities such as my utilities agency, know where the unserved and underserved areas are in our state. We would like to ensure that the dollars granted to applicants for our state do indeed serve to fill in an unserved area or improve an underserved area.

In 2006, Governor Arnold Schwarzenegger had the foresight to form a blue ribbon Broadband Task Force, on which I served. The Task Force performed a broadband mapping exercise and brought recommendations to the Governor for state action. Out of these efforts came the CPUC's California Advanced Services Fund (CASF). The CASF program is one of the few broadband infrastructure grant programs in the nation.

The CPUC also set up the California Emerging Technology Fund (CETF), a non profit organization intended to bridge the Digital Divide with $60 million in seed capital donated by AT&T and Verizon during merger activities in 2005.

Governor Schwarzenegger has designated the office of the Chief Information Officer to quickly review and prioritize any broadband applications for our state. The CIO has asked the CPUC and CETF to assist it.

Broadband Mapping

I recommend that NTIA and RUS require that each state engage in a broadband mapping exercise in order to have an accurate understanding of its unserved and underserved areas and not waste its ARRA funds. In California, we were pleasantly surprised to find that we had 96% of the state served by some form of broadband, although the 4% that was unserved meant 1.4 million persons and 2,000 communities without broadband. This is why the CPUC started our California Advanced Services Fund (CASF) program – to try and bring an "onramp to the Internet" to every community for economic development and social welfare reasons.

The broadband mapping exercise further revealed that we had a lot of work to be done as to underserved areas. We had a lot of slow broadband in certain parts of the state, particularly the rural far north, parts of the Central Valley, and certain areas of Southern California. It is my opinion that if we had not done our broadband mapping first, we would not have accurately targeted our infrastructure funds to the right places. Thus, accurate broadband mapping is a critical initial step, so that the broadband ARRA funds truly are used to bring broadband to unserved and underserved areas, as intended.

California advocates granular broadband mapping data at the street address level, which is how our State conducted our voluntary broadband mapping exercise in the 2006-2007 timeframe. We support the concept that broadband companies be required to provide such granular market data to state entities responsible for broadband at least annually, so that the state entity may accurately measure the extent of broadband access and availability.

Public-private partnerships (PPPs) on broadband mapping have been successful in California, with a neutral third party receiving and aggregating the data for a state agency due legitimate confidentiality concerns by broadband providers.

California recommends that the broadband mapping funds be fairly allocated among the states, with an eye towards population, density, area, broadband penetration, and state commitment to broadband.

Learnings from California's Broadband Infrastructure Program, CASF

Unserved and Underserved Definitions

California recommends that the NTIA and RUS put out an early definition of "unserved" and "underserved" areas. In California's CASF program, an "unserved area" was defined as an area that is not served by any form of facilities-based broadband, or where Internet connectivity is available only through dial-up service or satellite.

"Underserved" was defined as an area in which broadband is available but no facilities-based provider offers service at speeds of at least 3 Mbps download and 1 Mbps upload.

California recommends priority first is given to unserved areas, followed by underserved areas. We recommend timed filing windows beginning with unserved areas, followed by underserved area applications.

Broadband Speeds and Competitive Neutrality

The CPUC established a "current generation" speed benchmark of 3 Mbps download and 1 Mbps upload to CASF subscribers. This speed was not a minimum, however, as the CPUC believed that any broadband speed is better than no service at all; thus applications with any speed were accepted. The CPUC was balancing a speed level that would allow one to telecommute given current Internet uses to download video and data, while acknowledging "speed matters" by ranking faster speed applications higher in our application criteria.

Our formula awarded more points for faster service at a diminishing level in order to favor applications that would provide "current generation" speeds over those applications that sought "next generation" speeds. The formula is easily adapted to faster speeds over time. Notably, the California Broadband Task Force set a state goal of 50 Mbps by 2015 for global competitiveness.

Any ARRA program should be competitively neutral, with the goal of the least cost solution to avoid fraud, waste and abuse of the funds.

Matching Funds

The CASF program grants successful applicants 40% of the cost of the broadband infrastructure, while the applicant must bear the other 60% of the costs. What we have learned so far in California is that the 40% CASF match was probably not enough to provide incentives for broadband carriers to bring service to the most remote and rural unserved areas. I have had providers tell me that I could have given them 100% of the infrastructure cost for some of these very remote or rural areas, and it still would not make any business sense for them due to the extreme costs to bring broadband to these areas, coupled with the scarcity of subscribers.

I was pleased to see that under the ARRA, you have provided a hefty 80% funding match. I am hopeful that this 80% level will provide stronger incentives for the providers to serve the unserved and underserved areas. Here in California, we will consider an additional CASF match of at least 10% in order to provide strong incentives to our providers.

I recommend that NTIA require a firm match from the provider with 20% funding from any other source which must be specifically delineated and reasonably assured. For

example, grants from California's CASF program should be considered an assured source of matching funds.

Criteria for Broadband Infrastructure Grants

The CASF criteria and weighting may be helpful to NTIA or RUS as it decides on criteria for their ARRA programs. The CASF scoring criteria on broadband infrastructure projects include:

Criterion	**Weight (Points)**
Funds requested per Potential Customer	40
Speed	20
Service Area	15
Timeliness of Completion of Project	5
Pricing	10
Guaranteed Pricing Period	5
Low Income Areas	5
Total	**100**

I suggest that NTIA/RUS add as a criterion the number of jobs created by the project, consistent with ARRA goals.

Applications are subject to protest by third parties who may claim the proposed project area (or parts of it) is served. The CPUC staff may exclude parts of project area after investigation. Our broadband map of the state is updated with CASF data, on a rolling basis to keep it current.

CASF Applicants Submit Maps, Shapefiles and Speeds

CASF applicants are required to submit the most up-to-date census block group and geographic spatial map data to show broadband deployment and accurately depict unserved/underserved areas. A shapefile showing proposed service boundaries is required, along with lists of CBGs and zip codes to identify project boundaries. We also asked for advertised speed of existing broadband infrastructure within 5 miles of proposed project.

Prorating Costs and Middle Mile/Transport Issues

Applicants for CASF funds were allowed to pro-rate costs for projects where both unserved, underserved and served areas were included. Applicants had to fully explain the allocation of costs between areas eligible for funding and those that were not but affected by the project.

"Middle mile" or transport costs were allowed, but the applicant had to show it was necessary to upgrade "middle mile" transit facilities to reach broadband speeds for unserved or underserved project areas. Only the proportion of the middle mile or transport costs that would serve the unserved or underserved project was allowed to be recovered via the CASF grant.

Applications Include Potential Subscribers to Be Served and Detailed Budget

CPUC required the number of potential subscribers to be served in the targeted area, by households consistent with U.S. Census Bureau definition. A detailed budget was also required, showing a breakdown of project cost elements, and the availability of the 60% matching funds to be supplied by applicant or third parties. Grantees must submit invoices to obtain CASF reimbursement.

Bonds

No bond was required upon CASF application but an executed bond was required 5 days after effective date of CASF award. A performance bond "ensures costs in the event that the contractor abandons the work before its completion or fails to complete the work as required by the contract. The performance bond equals the contract price." The staff gave the PUC a recommendation on the need for performance bond and could waive it upon a showing, such as the grantee is a well established carrier.

Pricing Information

The proposed monthly charge for first year pricing for broadband was required to be disclosed in the application, with service restrictions, required equipment, etc. set forth. A minimum commitment of a year for monthly subscription fee was sought. Extra points were given if there was a special broadband rate for low income persons in the area. These provisions were important to the consumer groups who participated in our CASF rulemaking.

Qualifications

We required an applicant's balance sheet for latest available date. CASF funding was limited to entities with a Certificate of Public Convenience and Necessity or a wireless carrier registered with the CPUC. The CPUC is considering making CASF program competitively neutral as there has been interest by unregulated entities like Wireless ISPs.

ARRA requires non discrimination and network interconnection policy, no less than the FCC's Broadband Policy Statement. I recommend that these restrictions be carefully crafted in order to not discourage non regulated broadband providers from applying.

CASF Infrastructure Results So Far

Over 50 applications have been received by the CPUC requesting over $35 million and covering 160,000 households. Some areas received more than one application. $9.15 million of our $100 million fund is committed so far, with over 8,800 households benefited. The CPUC has plenty of money left to match federal ARRA funds for new projects in a new round to be gathered as soon as NTIA/RUS criteria are released.

Learnings from our CETF Program

Background

In 2005, CPUC created the California Emerging Technology Fund (CETF), a non profit organization with $60 million in seed money over 5 years donated by AT&T and Verizon during merger approvals. CETF's mission is to provide leadership statewide to minimize the "digital divide" by accelerating the deployment and adoption of broadband and other advanced communication services to unserved and underserved communities. CETF has given $20 million in grants so far to grantees that have track record of success in communities of focus. CETF is working on "needle moving" projects to bring digital literacy to three groups of consumers: rural, urban disadvantaged and people with disabilities.

The CETF strategic plan has five goals: (1) Civic leader engagement; (2) Venture philanthropy grant making; (3) Public policy promulgation; (4) Public awareness and collaboration; and (5) Strategic partnerships.

CETF requires a 3-to-1 match for every CETF dollar given to a grantee so grantees "have skin in the game." CETF considers the applicant's demonstrated track record; it looks for well respected community-based organizations with ability to integrate technology into a coherent program to transform their communities.

CETF also looks at the grantee's ability to address needs of people with disabilities ranging from accessible website and programs, to accessible facilities. CETF ensures there is a detailed budget and cost effectiveness on per unit cost outcomes. The grantees must agree to collaborate with others and be willing to participate in Learning Communities to share "best practices" and "lessons learned". They must have a viable plan for sustainability of their programs, with quarterly deliverables, quantified outcomes, and milestones required. They must be able to articulate a coherent monitoring and evaluation plan. They must have documented support from key ally

community and regional organizations that see broadband technology as key component of economic prosperity strategy.

Criteria for CETF Evaluation of Programs

Criterion	**Weighting (points)**
Alignment with CETF mission and approach	15
Understanding and incorporation of broadband technology	10
Organization management and leadership capacity	10
Quality and clarity of work plan	15
Quality and clarity of accessibility plan	10
Ability to leverage CETF funds	10
Prudence and transparency of budget and cost effectiveness	10
Quality of monitoring and evaluation component	5
Depth and breadth of collaboration and support	10
Prospects for long term sustainability	5
Total	**100 points**

I suggest NTIA add as a new criterion the number of jobs created by the project.

CETF also works on major policy initiatives:

- A Digital Literacy policy being considered for our State
- School2Home – A laptop project for low income middle school students which includes computer training for parents and teachers too
- Telehealth - $3.6 million in matching money for FCC rural telehealth pilot project grant of $22.1 million for California Telehealth Network
- Smart Housing – Bringing broadband to affordable housing units
- Smart Infrastructure – Bringing broadband conduit to all new housing
- Model Policies and Ordinances – Working to ease permitting issues for broadband providers with local authorities, state authorities and federal authorities

CETF Accomplishments

CETF has enjoyed major accomplishments*

Telemedicine sites (California Telehealth Network matching funds)	500 – 1,000
Housing units connected to broadband	30,000
People trained for digital workforce	1,300
Youth becoming digitally literate	2,800
Adults becoming digitally literate	5,600
Computers refurbished	22,000
People reached through distance learning	30,000
* Conservative estimates	

More Information on California Programs

- Commissioner Rachelle Chong, California Public Utilities Commission, crc@cpuc.ca.gov; and Robert Haga, Chief of Staff to Commissioner Chong, rwh@cpuc.ca.gov
- Sunne Wright McPeak, President and CEO, California Emerging Technology Fund, sunne.mcpeak@cetfund.org http://cetfund.org/
- Joe Camicia, Chief of Staff, Office of the Chief Information Officer, joe.camicia@cio.ca.gov

Thank you very much for this opportunity to testify before you. I look forward to answering any questions you may have.

Mr. BOUCHER. Thank you very much, Ms. Chong.
Ms. Turner-Lee.

STATEMENT OF NICOL TURNER-LEE

Ms. TURNER-LEE. Chairman Boucher, Ranking Member Stearns and esteemed committee members, I thank you for the opportunity to address you today.

One Economy is a global nonprofit that leverages the power of technology and information to connect low-income people to the economic mainstream, and we bring broadband into the homes of low-income people. So much of what I am going to talk about today in my summary statement is around the home. We also produce public purpose media and we engage young people in serving as technology ambassadors to move this movement forward.

Today as we examine issues related to the ARRA, I want to share a framework for success. As the witnesses here alongside of me talking about mapping it and building it, we also have to think about using it and the relevance behind the use, particularly for low-income people. Many examples of our work are provided in our written testimony but I do want to highlight the chair's commitment to a national policy, which I think is the whole of all the parts.

When we look at data on broadband, we see both good and bad news, which reflects the incongruencies that we today in society around broadband access. Most Americans by far have access but a recent report released by Pew suggests that they don't understand the relevancy or the usefulness of the broadband. So again, we can build it, but does that mean people will come?

When we look at the affordability of broadband access, we have got to see that as a significant inequality that exists as a barrier to adoption. How can people afford broadband if there are other things that they are working on or trying to survive with that get in the way of looking at the value proposition behind having broadband access? We would like for us to consider as we go forth that a goal of the broadband opportunities program, for example, should be to create a digital ecosystem comprised of the home, the school, community centers, libraries, workforce development centers and even mobile devices that support what we call a culture of use, and the home should be the core of that digital ecosystem.

A second goal should be focused on promoting broadband with a purpose that educates, motivates and empowers people to take control of their lives. In our work at One Economy, we have seen the power of broadband give low-income people tools for improving education, their health and their economic lives. When it is all said and done, the priority of what we have right now with the broadband stimulus program should be to put low-income people first in line, whether they are unserved or in underserved neighborhoods. Being first in line is critical to this first tranche of serving a pilot to show how effective we can be in this area. What better way, and I want to echo the home, to improve the quality of lives, through the provision of broadband into the home which will broaden the aspiration of people who are currently sitting back right now not participating in this economy. That action alone can take us on a chart towards leveling the playing field.

In our work a few years ago, we actually went to housing finance agencies and looked at the low-income tax credit, for example, to provide broadband access into affordable housing. As a result of that work, one in 300,000 units of housing now have broadband access from New York to Chicago to San Francisco. So I want to put that out there as one of the drivers.

Affordable, availability and usefulness are critical to this program and I would like to just leave us with six key drivers that we have learned from our work that should be included in the framing of how this money is allocated. They should include adoption, public-private partnerships, intentionality, affordability, sustainability and innovation. Adoption can be promoted in a variety of ways in local communities. Public awareness about the benefits of digital access, online public purpose media that puts vital information directly into the hands of citizens, digital literacy that creates or enhances aptitude are all valuable in adoption. For low-income people who are often caught in the web of government programs and services, simple and direct online access to programs can mean the difference between missing a day of work or standing in line at a municipal building.

Second, stimulus investments can be multiplied through public-private partnerships. Partnerships that create synergy between government programs and private sector interests help expand access for the public good. The example that I shared about the repurposing of the housing tax credit is one way to look at that synergy that could exist.

Third, the need to be intentional about how broadband stimulus funds are used to serve low-income or disenfranchised groups is crucial to the deployment of services and expansion of use. Stimulus funding can be used to move the meter, move the meter and support aging in place programs, educational programs, health care and workforce development programs and support the emerging needs of vulnerable populations whether unserved or underserved in location, and the allocation of stimulus funding, if we don't do this right, we are going to fail, at least this first time around.

And affordability of course is the fourth driver. When we look at the free or low-cost provisioning of services in communities that need it most, we should not reduce the quality of content or speed available to those communities and we should consider innovative pricing models that help people maintain use and not just become sporadic or one-time users of the Internet.

Sustaining engagement is equally important and I think under the current Administration coupling this with service may also be a critical aspect. We have a program that engages young people who I think by many of us in this room are far more active around technology where service becomes critical to their use in sustaining engagement.

And finally, innovation, and my final point. Unproven experiments should not be our goal here and technology bias should not hinder solutions. Innovative programs that are scalable, replicable and outcome-driven should be supported, especially when they leverage private and public partnerships.

Thank you.

[The prepared statement of Ms. Turner-Lee follows:]

Testimony
of
Dr. Nicol Turner-Lee
Senior Vice President of One Economy Corporation
Before the Subcommittee on Communications, Technology and the Internet

April 2, 2009

Respected Chairs Boucher and Waxman, Ranking Members Barton and Stearns, I thank you for the opportunity to be here today. My name is Nicol Turner-Lee, and I am Senior Vice President of External Affairs for One Economy Corporation.

One Economy is a global nonprofit that leverages the power of technology and information to connect low-income people to the economic mainstream. We bring broadband into the homes of low-income people, produce public-purpose media, and train and employ youth to enhance communities' technology capacity. Our work has taken hold in four continents, from big cities to small rural towns. Since our founding in 2000, our work has reached 17 million people.

Today, as we examine issues related to the broadband programs in the American Recovery and Reinvestment Act (ARRA), I would like to highlight the successes and challenges we face in encouraging families to adopt that access in their homes and communities.

When we look at the data on broadband, we see both good news and bad news.

Most Americans have *access* to broadband service—by which I mean it is available where they live if they want a connection to their home computer. In fact, according to the Federal Communications Commission's zip-code level data, in more than 90 percent of the United States, consumers can choose from three or more broadband providers. Nearly 60 percent of Americans have *adopted* broadband by paying for a high-speed connection.

The latest Pew data shows that the top reasons why people are not online are *usability* and *relevance* - two questions that One Economy is addressing with culturally meaningful, literacy accessible online content. The creation of the value proposition for first time and fully detached users is critical and the platform that includes – rather than excludes on the basis of language preference, literacy comprehension and speed is paramount to addressing barriers to adoption.

The affordability of access is another barrier to adoption as significant inequality that exists between rich and poor communities. According to the most recent Census Bureau data, while 76 percent of households earning more than $50,000 per year are connected, only 35 percent of homes with annual income less than $50,000 have adopted broadband in their homes. Low-income families are also less likely to have the money for broadband subscriptions and adequate hardware to connect to the Internet.

Universal access is particularly important to these low-income communities, along with programs that support widespread adoption. Programs that address the barriers to adoption can not only serve to accelerate use, but also strengthen the value proposition for disconnected citizens.

When we frame broadband access and adoption for the ARRA, our first goal should be to create a *digital ecosystem* comprised of the home, school, community centers, libraries, workforce development centers and even mobile devices that support a culture of use around broadband. Our second goal should be focused on promoting *broadband with a purpose* that educates, motivates and empowers people to take control of their own lives. In our work, we have seen the power of broadband give low-income people tools for improving their education, their health, and their economic lives.

For example, 70 percent of working families who receive the Earned Income Tax Credit (EITC) pay for professional help preparing and filing their taxes and as many as 25 percent of families who qualified for the EITC did not receive it. For the last two years, we have partnered with the private sector and

community-based organizations to make free tax preparation and filing available online. Families using our content rich web site, the Beehive (www.thebeehive.org), received nearly $10 million in state and federal refunds last year and we hope to double that number this year. In addition to the $1000 average refund, broadband made possible the education and support these families needed to file for themselves, saving hundreds of dollars in fees.

Broadband is also giving low-income people tools to improve their health. Chronic diseases affect millions of Americans and disproportionately impact low-income communities. Broadband can bring into homes the resources people need to handle the day-to-day management of a disease like diabetes- wherever they live. These tools can be accessed by people who may not be able to seek in-person assistance because of their location or the cost of these services.

Perhaps the most dramatic changes we have seen are in the area of education. Greene County, North Carolina—a rural, economically distressed area—struggled with high rates of poverty and low attainment of higher education. Beginning in November 2003, a diverse team of stakeholders, including the Greene County local government, the school system, grassroots leaders, and social service providers, used technology and its tools to positively impact the pressing economic needs in the area. The technology infusion began at the school-level by bringing Apple iBooks to each 6th through 12th grader.

The schools and the community quickly realized that without broad-based, affordable access to the Internet, the benefits of technology would be limited. In November 2003, Greene County leaders began working with One Economy to help create Internet tools and content for the community. Since then, Greene County has developed free Internet hotspots at schools and fire stations and a municipal broadband solution for the entire County.

Today, Greene County has improved educational outcomes—including higher SAT scores, more students attending college, and dramatically reduced teen pregnancy.

These opportunities to improve health, education, and economic livelihood in low-income communities demonstrate that while universal access is an important goal, it is only a starting point. Our experience has shown that additional steps—efforts that are less about a specific technology and more about awareness and creating a culture of use—are needed to ensure that the benefits of the digital age are reaching the communities that need them most.

As specified in the American Recovery and Reinvestment Act, government can play a role in stimulating both supply and demand. Programs that integrate what we consider six key drivers – *adoption, public/private partnerships, intentionality, affordability, sustainability and innovation* can support the development of a digital ecosystem and promote a culture of use. These six drivers should serve as a framework for evaluating requests for broadband stimulus funding and drive our national goal to bring access to unserved and underserved communities.

First, adoption can be promoted in a variety of ways in local communities. Public awareness about the benefits of digital access, online media that put vital information and tools directly in the hands of citizens, digital literacy that creates or enhances aptitude and affordability are all critical in demonstrating the value proposition of bringing broadband into the lives and homes of American people. For low-income people, who are often caught in a web of government programs and services, simple and direct online access to those programs can mean the difference between missing a day of work to stand in line at a municipal building and getting help in the comfort of one's home. At One Economy, we believe that the time has come for a broad-based effort to provide these kinds of information and tools online. To that end, we have created the Public Internet Channel (*PIC.tv*): public-purpose programming designed to inform, engage, and help people take action. The millions of people who have taken advantage of our

online resources to file their taxes, find better schools for their children, start new businesses, and take other steps to improve their lives demonstrate the need for such an effort.

Second, stimulus investments can be multiplied through public and private partnerships. Partnerships that create synergies between government programs and private sector interest help expand broadband access for the public good. Moreover, local and state government endorsements of such programs serve to embed them into the fabric of local democracies.

Third, the need to be intentional about how broadband stimulus funds are used to serve low-income or disenfranchised groups is crucial to deployment of services and the expansion of use. If the allocation of broadband stimulus funding does not make a considerable difference among this demographic, we have failed. Moreover, we have hindered the workforce and community development opportunities that flourish in communities when broadband is readily available.

Affordability is the fourth driver to consider in the examination of broadband programs. Free or low cost provision of broadband services should be made available to communities in need without reducing quality of service or content offerings. In addition, innovative payment plans or pricing models can serve to encourage broadband adoption and maintain long-term use among low and moderate income families.

Sustaining the engagement of individuals is also a necessary fifth driver as we involve targeted populations in the creation of content, new applications, social uses and compelling online communities. Imagine the possibilities when people who have been left behind become active advocates for broadband access and adoption. Five years ago, One Economy provided young people, ages 14 to 21 years old, with the tools to become technology ambassadors throughout rural and urban America. These young people served their communities after receiving leadership training and learning a digital competency. Today, over 2,600 Digital Connectors have provided more than 56,000 hours of technology service in

communities across the United States. We view this program as one of many vehicles that activates people to learn and teach their neighbors on the power and benefits of this medium.

Innovation is the final driver for creating successful adoption programs. Unproven "experiments" should not be the goal and technology bias should not hinder solutions. Innovative programs that are scalable, replicable and outcome driven should be supported, especially when they leverage private/public partnerships and are intentional in impact. Right now, the stimulus provides an opportunity to surface and expand innovative program models that are making a difference throughout the country. Utilizing tax credits for developers to lower the cost of broadband in public and affordable housing is just one example of the type of innovation that can be expanded to other housing authorities or transforming young people into Digital Connectors who get educational credit for their service is also replicable and scalable. These both represent rapid wins and quick investments that serve to accelerate deployment and adoption activities.

Again, I appreciate the subcommittee's interest in hearing our testimony on how ARRA broadband programs can help accelerate the national goal of providing universal access and meaningful value for disconnected populations throughout rural and urban America. I believe that the integration of our six drivers into the framework for the submission and evaluation of programs will set us on a path to cultivate broadband with a purpose for the millions of people that have been fully or slightly disconnected from the digital economy.

Mr. BOUCHER. Thank you very much, Ms. Turner-Lee.

We now have a series of five recorded votes pending on the Floor of the House of Representatives, and it will probably take somewhere on the order of 45 minutes for that to be completed, so we are going to recess now and when we return we will hear from Mr. Mefford and Mr. Large and then have an opportunity to question all the witnesses. The subcommittee stands in recess until the conclusion of the final recorded vote.

[Recess.]

Mr. WEINER. [Presiding] The subcommittee will come to order.

Mr. Mefford, you are recognized for 5 minutes to make an opening statement.

STATEMENT OF BRIAN R. MEFFORD

Mr. MEFFORD. Mr. Chairman and Ranking Member Stearns, members of the committee, thank you for the opportunity to be with you today and to discuss these important elements of the broadband stimulus.

When I had the honor of testifying before this subcommittee nearly 2 years ago, our country's broadband policy was in a very different place. Today, thanks in large part to the hard work of this committee, Congress has enacted the Broadband Data Improvement Act of 2008 with unanimous bipartisan support. Through this Act, Congress established a clear path for broadband expansion through State-based public-private partnerships and now through the broadband stimulus Congress and the Obama Administration have provided funding for implementing the Broadband Act, setting the course to realize the numerous promises of broadband technology for all Americans.

For the last 5 years, Connected Nation has worked directly with States, local leaders and consumers and broadband providers to build partnerships that accelerate broadband availability and use. We work on behalf of American consumers and businesses and we continue to find that those previously underserved or overlooked people can and will overcome broadband challenges when the public and private sectors are working together for meaningful change.

Mr. Chairman, while there are many promising components of the broadband stimulus that I could address in remarks, those things that will be carried out by the RUS, the NTIA and the FCC, my remarks today will focus on the elements associated with the Broadband Data Improvement Act with an emphasis on ensuring that these important elements are not lost in the pursuit to rapidly address the——

Mr. WEINER. Mr. Mefford, can I interrupt you for a moment? I understand your microphone is not on and we are not picking it up. Is it on there?

Mr. MEFFORD. So again, Mr. Chairman, my emphasis in my remarks today will focus specifically on the elements—not working?

Mr. WEINER. Try it again. I have been the chairman for 15 seconds and already I have broken something. Ms. Chong, try yours. Is yours working there?

Ms. CHONG. Testing one, two, three. It sounds like they are all muted up here for some reason.

Mr. WEINER. That is the most important thing that we have your comments on the record and apparently we do, so Mr. Mefford, why don't you continue and we will reset some time on your clock there.

Mr. MEFFORD. So again, just to emphasize my emphasis for the committee, I will focus my remarks on the elements associated with the Broadband Data Improvement Act so that we can talk about ensuring that these important elements are not lost in the pursuit to rapidly address the supply side elements of the stimulus.

Specifically, we would like to offer two suggestions that would help ensure that all broadband stimulus funding is invested in a manner that is effective, accountable and achieves the ultimate goal of sustainable broadband access and adoption. On the point of broadband mapping, I want to offer our view that effective mapping must take place as Congress determined through a collaborative public-private partnership approach. The Broadband Act clearly establishes——

Mr. WEINER. The mic is on now.

Mr. MEFFORD. On the first point of broadband mapping, I want to offer our view, Connected Nation's view, that effective mapping must take place as Congress determined through a collaborative public-private partnership approach. The Broadband Act clearly established a straightforward policy for broadband mapping. The law calls for mapping at a household and business level and it clearly states that the public and private sectors should work together to achieve all components of the program. Today, at least 9 States are already using this collaborative approach for household-level broadband mapping and these States have achieved or will soon achieve a broadband map that identifies areas unserved and underserved down to the street and individual household. Those States now have an effective tool for targeting projects through the stimulus, and additionally, once those projects are funded and deployed, the broadband maps which are updated continuously will show exactly where and how broadband stimulus grants are being used to fill the broadband gaps. This household-level mapping of provider service availability data is the only way to truly understand where the broadband gaps exist, particularly in rural areas. If broadband mapping is done at any higher level using any other source of data, the result will be a severe overestimation of broadband deployment across the United States, creating, Mr. Chairman, an impractical way to effectively track and measure the effectiveness of those investments. It is imperative, and we would encourage the NTIA to implement broadband mapping in the manner that Congress has set forth through the Broadband Act of 2008. It is this local on-the-ground approach that produces maps of broadband availability and speeds which are accurate, detailed, publicly accessible and verifiable, continuously updated and most importantly, they are useful for filling the broadband gaps.

The second point I would like to make today after spending the first half of my time establishing the importance of broadband mapping, I want to remind us all that the $350 million that is provided in the broadband stimulus act for implementing the Broadband Data Improvement Act is not just about mapping. Indeed, mapping is just one piece of the larger grant program within the Broadband Act. The bulk of that grant program enables grass-

roots awareness and adoption programs, programs that will ensure that once the infrastructure funding is invested, Americans in most need of broadband will directly benefit from it. What we know is that broadband is available to roughly 90 percent of Americans yet only about 57 percent of Americans subscribe to broadband. In areas where the recession has hit the hardest, broadband adoption is much lower, and even in areas where broadband is already universally available. This doesn't diminish the need for deploying broadband to areas that remain unserved or underserved. Broadband deployment in those areas is a critical piece of the broadband stimulus. However, the ultimate measure of success and accountability for the $7.2 billion of funding in the broadband stimulus will come down to whether or not people use broadband once it is made available.

Connected Nation's work in more than 400 communities as well as a vast body of research reinforces the need for broadband infrastructure funding and further reinforces the need for affordable broadband offerings. However, this experience and research indicate that the top barrier to broadband adoption is not price or availability but rather a lack of demand for broadband services. In fact, Mr. Chairman, more than half of those who have not adopted broadband say that is it not relevant to them. They are not interested or they simply don't see the point of having a broadband-connected computer at home. The results are similar in both urban and rural areas. Basically there is a dire need for broadband awareness, education and training, and it is only when people actually use broadband that we start to see the real long-term economic benefits.

The State grant program in the Broadband Act of 2008 includes a series of requirements for State-based expansion programs that address all these demand-side challenges, and these five elements of the Broadband Act have provided the thrust of Connected Nation's State-based programs in places like Kentucky, Tennessee and Ohio, and the results from these three States, these States and others, continue to demonstrate that all five of those Broadband Act elements are critical for success in accelerating broadband.

In conclusion, it is clear that it has been demonstrated that public-private partnerships have proven to be the most effective vehicle for accelerating broadband availability and use. There will be voices that choose to ignore the path that Congress has laid out. However, when we look past the self-interested positioning in order to objectively assess what really works to map broadband availability, to fill the broadband gaps and to bridge the digital divide for all Americans from Main Street to Butcher Hollow, it is clear that a successful approach is a collaborative model where the public and private sectors work together to bring broadband to all Americans. Congress has charted that course and we are confident that the executive branch will steer the ship with the same spirit of collaboration.

[The prepared statement of Mr. Mefford follows:]

Prepared Testimony of Connected Nation Chairman and CEO Brian R. Mefford
United States House of Representatives Committee on Energy and Commerce,
Subcommittee on Communications, Technology, and the Internet
"Oversight of the American Recovery and Reinvestment Act"
Thursday, April 2, 2009

Chairman Boucher, Ranking Member Stearns, and Members of the Committee – thank you for the invitation to discuss broadband within the context of the American Recovery and Reinvestment Act (ARRA).

When I had the honor of testifying before this committee nearly two years ago, our country's broadband policy was in a very different place. Indeed, at that point we had very little in the way of national broadband policy. Today, thanks in large part to the thoughtful study and hard work of this committee, Congress has enacted the Broadband Data Improvement Act of 2008, with unanimous bipartisan support. Through this legislation, now Public Law 110-385, Congress has established a clear path for broadband expansion through state-based public private partnerships. And now through the American Recovery and Reinvestment Act, Congress has provided $350 million for implementation of the Broadband Data Improvement Act, thus setting the course for the public and private sectors to work collaboratively for mapping the broadband gaps, filling the broadband gaps, and increasing broadband adoption and computer use – ultimately empowering our nation with more accessible education and

healthcare, a better skilled and more mobile workforce, more products to market, and enhanced economic opportunity and quality of life for all Americans.

Connected Nation is a non-profit organization that works with states, local communities, and technology providers to increase broadband adoption and digital literacy for all Americans – both urban and rural. For the last five years, Connected Nation has worked directly with states, local leaders, consumers, and broadband providers to build public-private partnerships to map the statewide gaps in broadband service; conduct local-level research on broadband and computer adoption and the barriers to technology use; develop grassroots technology planning teams in every county across a state for improved broadband adoption, and establish computer distribution and technology literacy programs for low-income and disenfranchised people. We work on behalf of American consumers, and we continue to find, time and again, in communities across our nation, that unserved and underserved people can and will overcome broadband challenges when the public and private sectors work together for meaningful change.

To that end, we applaud Congress for passage of the Broadband Data Improvement Act, and its full funding through the American Recovery and Reinvestment Act. This action establishes a clear spirit of collaboration between the public and private sectors. We recognize and appreciate that Section 106 of the Broadband Data Improvement Act was based on the Connected Nation

model for broadband expansion, and we would like to offer two suggestions that would help ensure the Broadband Data Improvement Act and all broadband stimulus funding is implemented in a manner that is effective, accountable, and achieves the ultimate goal of sustainable broadband access and adoption.

1) Effective broadband mapping must take place through a collaborative, public-private partnership approach.

The Broadband Data Improvement Act clearly sets forth a straightforward policy for broadband mapping. The law calls for mapping at a residential and business level, and it clearly states that the public and private sectors should work collaboratively to achieve all components of the program. Today at least nine states are already using this collaborative, public-private approach for household level broadband mapping. These states have achieved or will soon achieve a broadband map that identifies areas unserved by broadband, down to the street and individual household. In those states where a household level broadband map has been developed, applicants for the $7.2 billion in stimulus funding for broadband infrastructure now have an instant tool for targeting projects in unserved areas. Additionally, once these infrastructure projects are funded and deployed through the ARRA, the broadband maps – which are continuously updated – will show exactly where and how broadband stimulus grants are being used to fill the broadband gaps.

Plenty of evidence exists to justify why Congress called for household level mapping in the Broadband Data Improvement Act. This household level is the only way to truly understand where the broadband gaps exist, particularly in rural areas. If broadband mapping is done at any higher level – at a geographic unit level such as Census units or postal codes such as nine-digit zip – the result will be a severe overestimation of broadband deployment across the United States.

For example, Connect Minnesota has found, through a detailed and granular method of broadband mapping at the household level, that broadband is available to 94% of Minnesota households. If Minnesota's broadband service availability were mapped at the level of census block groups, broadband deployment would be grossly overstated at 99.6%. Even at the most granular census block level, Minnesota would appear to have 96.4% broadband deployment – again, compared to Connect Minnesota's household level mapping which shows 94% availability. Even going down to the census block level, this type of general mapping would assume that nearly 45,000 Minnesota households are served when they are in fact unserved. Even worse, if Minnesota's broadband deployment were mapped in terms of nine-digit zip codes, the process would become substantially more laborious and complicated, and even less accurate, since zip codes at any level are postal codes and not geographic units.

The result of inaccurate and overstated broadband maps would be an inaccurate baseline for broadband deployment as well as inaccurate benchmarks when Congress tries to evaluate the progress and impact of the whole of the broadband stimulus funding. This does not lessen the importance of the FCC's new data collection methods by Census Tract through the reformed Form 477 process, which is a vast improvement over previous FCC data collection by zip codes. However, this type of data collection conducted by the FCC serves a very different purpose from the type of mapping Congress called for in the Broadband Data Improvement Act. FCC data collection by Census Tract (or any other potential geographic unit) is important for providing macro analyses to inform federal policy development. But it is impractical, unreasonable, and redundant to expect the FCC or any other federal agency to develop household level broadband maps without the support of public-private partnerships working on the ground with consumers and broadband providers to understand exactly where broadband is offered and where it is not. Oftentimes, broadband providers – particularly smaller ISPs and rural providers – do not even store data that indicate where they offer broadband service. Mapping projects through public-private partnerships work literally on the ground with these small providers to help them collect the data necessary for the broadband maps. These maps are continuously updated so that the maps immediately reflect deployments as they occur – thereby ensuring that local leaders have real-time information about unserved areas so that their efforts and resources are targeted effectively. Just as importantly, public-private partnerships provide daily custom mapping

analyses for state and community leaders, overlaying local level research such as broadband barriers and demographic data such as household density on a neighborhood-specific basis. Connected Nation maps vertical assets such as water tanks and cell towers, conducts topographic and propagation analyses, and provides engineering assessments at a local level. It goes without saying that all of this work is done at no additional cost to local leaders, and is included as part of the statewide efforts to help communities and broadband providers work together in the formation of business plans for sustainable broadband investment and deployment to unserved and underserved areas.

Therefore it is imperative that the NTIA implement broadband mapping in the manner that Congress has clearly set forth through the Broadband Data Improvement Act – by a method of household level mapping through state-based public-private partnerships. It is this local, on-the-ground approach to broadband mapping that is now being used by at least nine states and has produced maps of broadband availability and broadband speeds which are accurate, detailed, publicly accessible and transparent, verifiable, continuously updated, and perhaps most importantly, useful for filling the broadband gaps.

Critics of Connected Nation's stance on broadband mapping will say that maps developed through public-private partnerships are not verifiable or transparent. This is simply untrue, and anyone who goes online to view the interactive maps within these states who are engaging in this public-private mapping will plainly

see that broadband availability is made entirely transparent for consumers, with zoom and address search tools which allow consumers to search for an address and receive a list of broadband providers that serve a home or business. Connected Nation employs and promotes a number of mechanisms to ensure its maps are accurate. In addition to extensive field tests, Connected Nation provides a number of communication tools with consumers through our website, interactive map, grassroots technology teams, and broadband telephone hotline to encourage consumers to let us know if they want broadband and can't get it, or to let us know if a map contains any inaccuracies. All inaccuracies are corrected immediately. The only data that are not disclosed are proprietary data such as the exact locations of infrastructure/equipment and the specific network footprint of individual providers. It is this information that Connected Nation translates and processes to develop a household level depiction of broadband availability, to illustrate the broadband gaps in availability and speed at a level so granular that it is verifiable by all consumers, and then to validate the data through an open, web-based, and publicly transparent broadband map.[1]

[1] Connected Nation's maps can be viewed on the websites of Connected Nation's statewide programs, such as Connect Ohio at http://connectohio.org/mapping_and_research/interactive_map.php and Connected Tennessee at http://connectedtn.org/broadband_landscape/interactive_map.php.

2) The $350 million provided in the ARRA for implementation of the Broadband Data Improvement Act is not just about mapping. Indeed, mapping is just one piece of the larger grant program within the Broadband Data Improvement Act. The bulk of the grant program empowers grassroots-driven broadband awareness and adoption programs. This grassroots component will help ensure that once the $7.2 billion in ARRA funding for broadband infrastructure is spent, Americans in most need of broadband will directly benefit from it.

What we know is that broadband is available to more than 90% of Americans, yet only about 57% of Americans subscribe to broadband.[2] In areas where the recession has hit the hardest, broadband adoption is much lower, even in areas where broadband is already universally available. In Licking County, Ohio – which is part of Congressman Space's district – more than 97% of residents have broadband service available; however, only 54% subscribe to broadband at home. In Decatur County, Tennessee, within Congresswoman Blackburn's district – 72% of residents have broadband available, yet only 31% subscribe at home. And one of the more striking examples falls in Congressman Gordon's district – Clay County, Tennessee, where 100% of residents have broadband available, but only 23% subscribe. These examples are not limited to Ohio and Tennessee. In communities across our country, Americans are not taking advantage of the benefits of broadband, even when it is available. This does not diminish the need for deploying broadband to areas that are unserved and

[2] Pew Internet and American Life Project, December 2008 survey of American residents.

underserved – the $7.2 billion in stimulus funding for broadband deployment in the areas where it is needed is a critical and necessary piece to the ARRA broadband funding. However, the ultimate measure of success and accountability for the $7.2 billion will come down to whether or not people use broadband once the pipes and towers are built.

The Pew Internet and American Life Project conducted a recent study asking those who don't use broadband why they don't use it.[3] Pew found that 18% of those who haven't adopted broadband say it's a matter of price. Another 14% said broadband is not available where they live. Connected Nation's state and local surveys – which are conducted through a methodology that mirrors Pew's surveys – find similar results. This research reinforces the need for the $7.2 billion in broadband infrastructure funding, and further reinforces the need for affordable broadband offerings. However, Pew also found that the top barrier to broadband adoption is not price or availability, but rather, a lack of demand for broadband services. More than half of those who have not adopted broadband say it's not relevant to them – they are not interested in broadband, too busy for broadband, and the like. Another 17% say broadband is too difficult to use or a waste of time. Connected Nation has been conducting similar surveys at the state and local level for the last five years, and the results are strikingly similar in both urban and rural areas – there is a dire need for broadband awareness,

[3] Horrigan, John. Obama's Online Opportunities II: If you build it, will they log on? Pew Internet and American Life Project. January 2009.

education, and training. It is only when people actually use broadband that we start to see the real and long-term economic benefits.[4]

The $350 million set aside in the ARRA for implementation of the Broadband Data Improvement Act, along with the additional $250 million for demand stimulation programs and the $200 million for strengthening public computing centers at libraries and community colleges, provide a clear vehicle for ensuring that the broadband infrastructure funding will bring about maximum, long-term economic stimulus. In particular, the grant program in the Broadband Data Improvement Act includes a series of requirements for state-based broadband expansion programs. These requirements boil down to five primary elements:

1) Broadband mapping at a household and business level;
2) Local research in every county across a state to identify the specific barriers to broadband adoption in each community;
3) Local technology planning teams in every county across a state, which will use the broadband maps and local research to develop tactical and community-specific business plans for technology expansion;
4) Computer connectivity programs for low-income and underserved populations; and

[4] Results of Connected Nation's most recent survey research can be found on Connected Tennessee's website at http://connectedtn.org/research/Tennessee_Technology_Trends_2008.php, and on Connect Ohio's website at http://connectohio.org/mapping_and_research/Technology_Assessment.php. Local survey research for each Tennessee county can be found at http://connectedtn.org/find_your_county/. Local survey research for each Ohio county can be found at http://connectohio.org/mapping_and_research/county_profiles/ .

5) Thematic collaboration and cooperation between the public and private sectors across all program elements.

These five elements of the Broadband Data Improvement Act are very familiar to Connected Nation because they are the same five elements that make up the state-based public-private partnerships in Ohio, Tennessee, and Kentucky, and the dozens of other states that are working toward implementation of similar programs, based on the best practices for statewide broadband expansion which continue to develop in these three states. Ohio, Tennessee, and Kentucky have demonstrated – and continue to demonstrate – that all five programmatic elements of the Broadband Data Improvement Act are critical for success in mapping the broadband gaps, stimulating broadband demand, closing the digital gap, and ultimately increasing broadband adoption and economic prosperity.

In Tennessee, after 18 months of on-the-ground work by the Connected Tennessee public-private partnership for statewide broadband expansion, home broadband adoption in Tennessee has increased by 26% compared to an estimated 15% growth nationally. Computer ownership in Tennessee has more than doubled national growth – increasing by 7% compared to an estimated 3% national growth. Tennessee has now surpassed (by 10 percentage points) the national average of 74% of Americans who use the Internet from home or some other location. In Tennessee, 84% of residents use the Internet. Underserved populations in Tennessee have seen the largest increases in broadband

adoption and computer ownership, particularly among those demographics which have been targeted through the Connected Tennessee program. Broadband adoption among low-income minorities grew by 90% within the first year of Connected Tennessee's work.[5]

Public-private partnerships have proven themselves as the most effective vehicle for progressive change in broadband availability and adoption. There will be voices that choose to ignore the path that Congress has laid. These voices will push for public coercion of data and working against the private sector in this endeavor. However, when one looks past the self-interested pontificating and looks objectively at what really works to map broadband availability, fill the broadband gaps, and bridge the digital divide for Americans on Main Street – it is clear that a successful approach is a collaborative, cooperative model whereby the public and private sectors work together to bring broadband to all Americans. Congress has charted the course, and we are confident that the executive branch will steer the ship with this same spirit of collaboration between the public and private sectors.

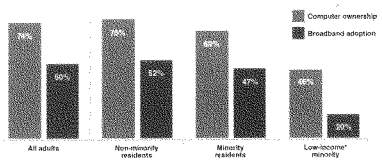
[5] Connected Nation. The Call to Connect Minority Americans: A Connected Nation Policy Brief. March 27, 2009. http://connectednation.org/research/Minority_Americans_Policy_Brief.php. Also attached as an appendix to this document.

The Call to Connect Minority Americans: A Connected Nation Policy Brief

Recent studies show that American minorities continue to be among the nation's digitally disconnected. In surveys conducted across three states, computer ownership and broadband adoption among minority residents lag behind non-minorities.

- Only 69% of minorities own computers, compared to 76% of non-minorities. Among low-income minorities, computer ownership falls significantly lower at 46%.
- Only 47% of minorities subscribe to broadband at home, compared to 52% of non-minority residents. Home broadband adoption among low-income minorities falls to a staggering 20%.

Technology Adoption Among Minorities

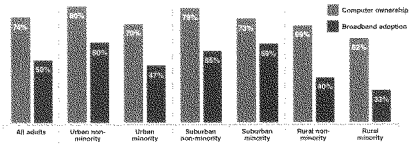


The technology gap for minorities is evident in both urban and rural areas. It is only in suburban areas that minorities maintain computer ownership and broadband adoption rates that are equal or better than average.

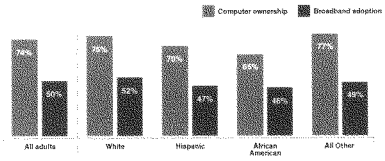
- In urban areas, where broadband is nearly ubiquitous, broadband adoption among minorities remains low at only 47%. By contrast, 60% of non-minorities subscribe to broadband in urban areas.
- In rural areas, broadband adoption among minorities still falls well below non-minorities. Only 33% of minorities subscribe to broadband compared to 40% of non-minorities.

The racial breakdown illustrates lower broadband adoption rates among all minorities, with Hispanics and African Americans posting significantly lower computer ownership rates.

Technology Adoption Among Minorities in Urban and Rural Areas



Technology Adoption by Race



Statewide Public-Private Partnerships for Digital Inclusion

Among the broadband stimulus funds in the American Recovery and Reinvestment Act of 2009, Congress and the Obama administration have empowered states and communities to address the digital divide through funding the Broadband Data Improvement Act of 2008. This funding is available to states to develop and implement public-private partnerships for grassroots-driven expansion of broadband and computer use, particularly among low-adoption and underserved populations.

The Broadband Data Improvement Act (as funded in the stimulus act) provides states with a prime opportunity to address the connectivity challenges among minorities. The BDIA grant program provides funds to:

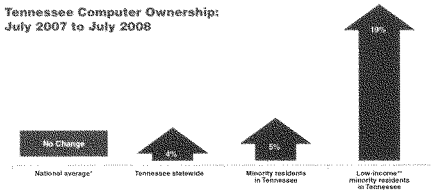
1. Develop street-level broadband availability maps,
2. Conduct detailed market research on the barriers to broadband adoption among various demographics,
3. Establish local technology planning teams in every county for increased broadband use,
4. Facilitate collaboration among the public and private sectors, and
5. Establish computer and Internet connectivity programs, particularly among low adopters and disenfranchised groups.

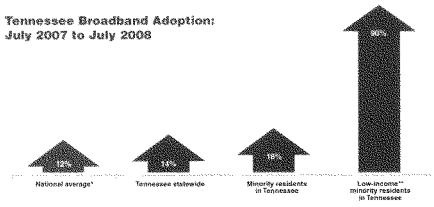
In order to be eligible for funding, states should designate an eligible entity to apply for the grant and operate the statewide program in each community across the state. This eligible entity may be a non-profit organization such as Connected Nation.

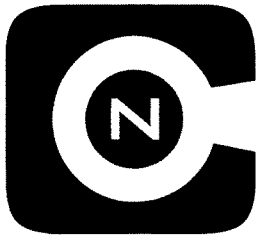
In states such as Kentucky, Ohio, and Tennessee, public-private partnerships are connecting the disconnected. Minorities are among those seeing the greatest impact.

After just one year of the Connected Tennessee program, statewide computer ownership increased by 4% compared to stagnant national growth. The increase in computer ownership among minorities was even higher at 5% (again, compared to 0% growth in the rest of the nation). Among low-income minorities, computer ownership increased by 19% in just one year.

Meanwhile, home broadband adoption in Tennessee has realized significant growth, particularly among minorities. Within the one year period, Tennessee's statewide broadband adoption grew two percentage points faster than the nation as a whole, with 18% broadband growth among minorities, and 90% broadband growth among low-income minorities.







CONNECTED NATION℠

United States House of Representatives
Committee on Energy and Commerce
Subcommittee on Communications,
Technology, and the Internet

"Oversight of the American Recovery and Reinvestment Act"

April 2, 2009

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CONNECT Minnesota

Minnesota Broadband Service Inventory

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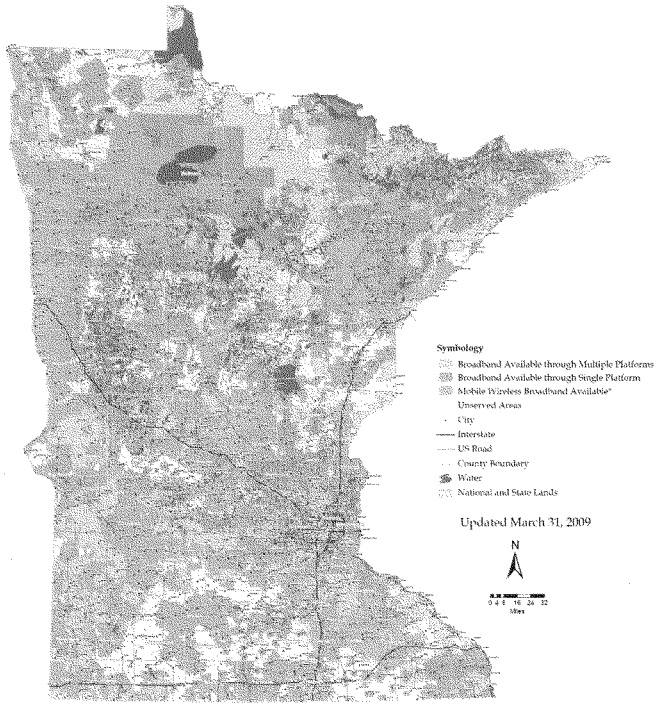

This map does not depict satellite broadband service.

*This map is not a guarantee of coverage, contains areas of no service, and generally predicts where outdoor coverage is available. Equipment, topography, and environment affect service.

Connect Minnesota has worked with broadband providers throughout the State to identify the gaps in broadband service - the first step in a statewide effort to "fill the gaps" for 100% broadband availability.

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CONNECT Minnesota

Minnesota Broadband Service Inventory

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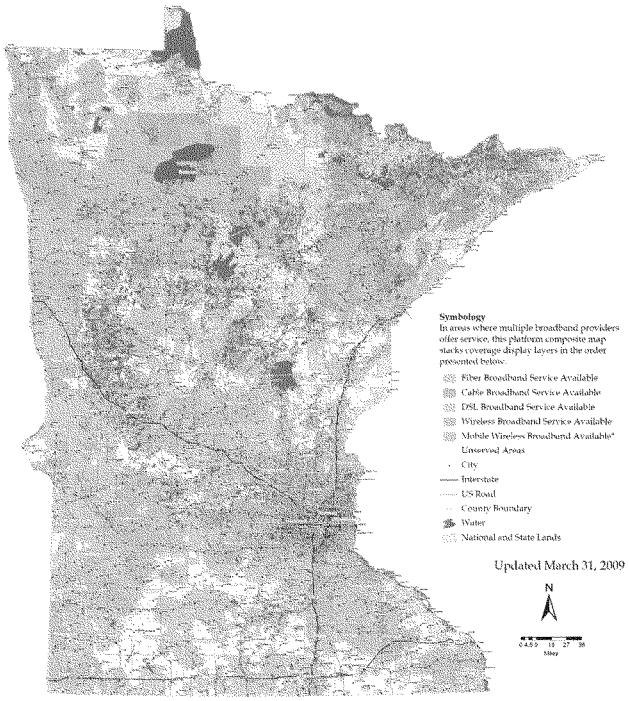

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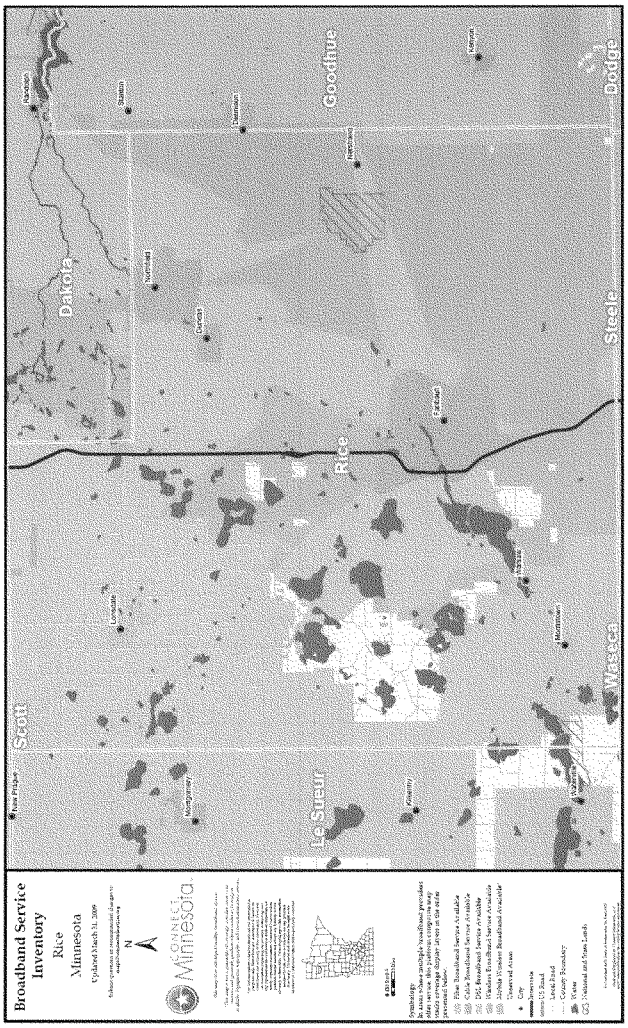
Broadband Service Inventory
Rice
Minnesota
Updated March 31, 2009
Connected Minnesota
Scott
Dakota
Goodhue
Le Sueur
Rice
Steele
Waseca
Dodge
Symbology:
Rice Broadband Service Available
Cable Broadband Service Available
DSL Broadband Service Available
Fixed Wireless Broadband Available
Satellite Internet Broadband Available
Unserved Areas
City
Lake
Lake/Pond
County Boundary
Water
National and State Lands

CONNECT Minnesota

Minnesota Average Residential Upload Speed

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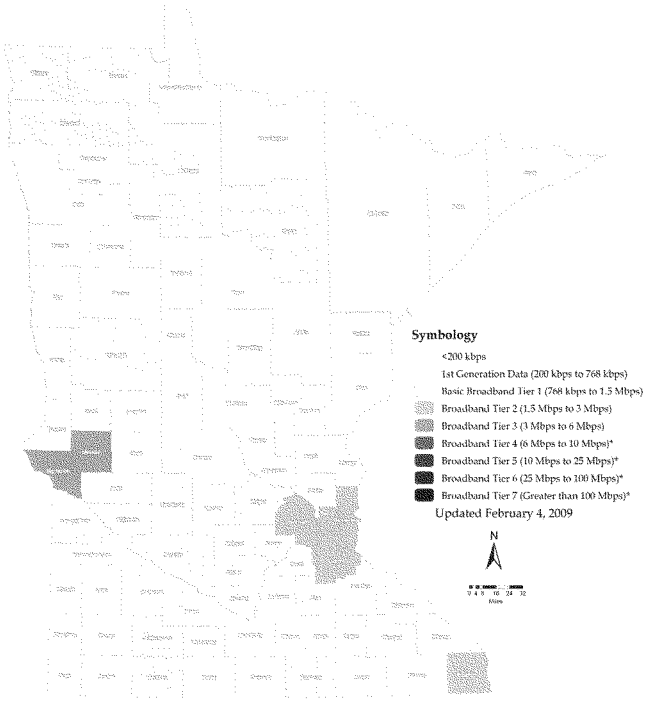

Speed maps are based on an aggregation of data transmission speeds gathered from a sampling of consumers volunteering to utilize online speed testing tools. Download and upload speeds can be affected by network congestion along the entire path of the test, shared connections at the end user's location, and/or potential hardware limitations on the tested computer. Speed maps are not a depiction of broadband availability or adoption, nor are they necessarily an indicator of the available bandwidth within a given geographic area.

Connect Minnesota has worked with broadband providers throughout the State to identify the gaps in broadband service - the first step in a statewide effort to "fill the gaps" for 100% broadband availability.

*County Average Not Represented in This Tier.

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CONNECT Minnesota

Minnesota Average Residential Download Speed

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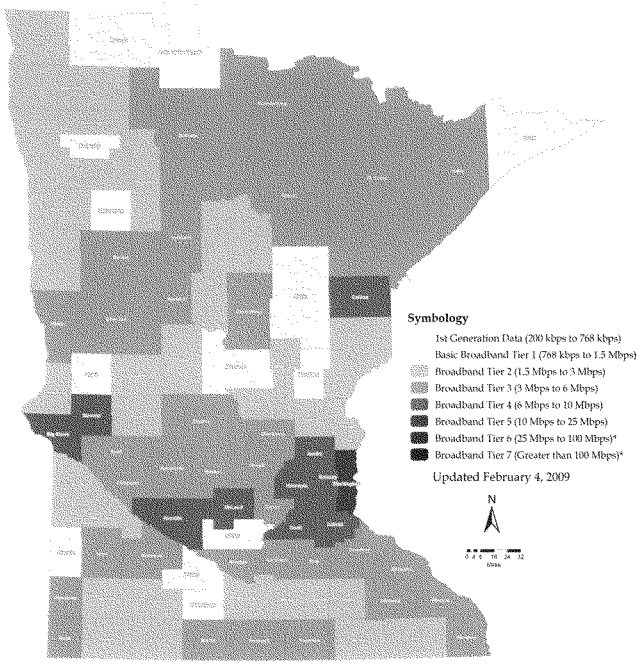

Speed maps are based on an aggregation of data transmission speeds gathered from a sampling of consumers volunteering to utilize online speed testing tools. Download and upload speeds can be affected by network congestion along the entire path of the test, shared connections at the end user's location, and/or potential hardware limitations on the tested computer. Speed maps are not a depiction of broadband availability or adoption, nor are they necessarily an indicator of the available bandwidth within a given geographic area.

Connect Minnesota has worked with broadband providers throughout the State to identify the gaps in broadband service - the first step in a statewide effort to "fill the gaps" for 100% broadband availability.

*County Average Not Represented in This Tier.

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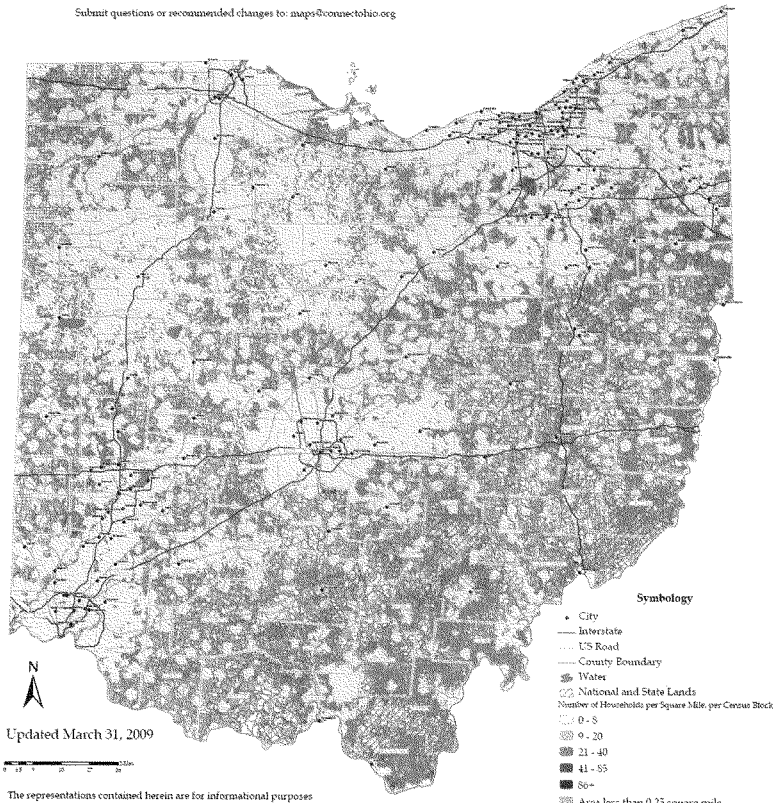
Density of Households Unserved by a Broadband Provider by Census Block

CONNECT OHIO

Submit questions or recommended changes to: maps@connectohio.org



Symbology

- City
- Interstate
- US Road
- County Boundary
- Water
- National and State Lands

Number of Households per Square Mile, per Census Block

- 0 - 8
- 9 - 20
- 21 - 40
- 41 - 85
- 86+
- Area less than 0.25 square mile
- Broadband Available*

*This map does not depict satellite broadband service.

Connect Ohio has worked with broadband providers throughout the State to identify the gaps in broadband service - the first step in a statewide effort to "fill the gaps" for 100% broadband availability.

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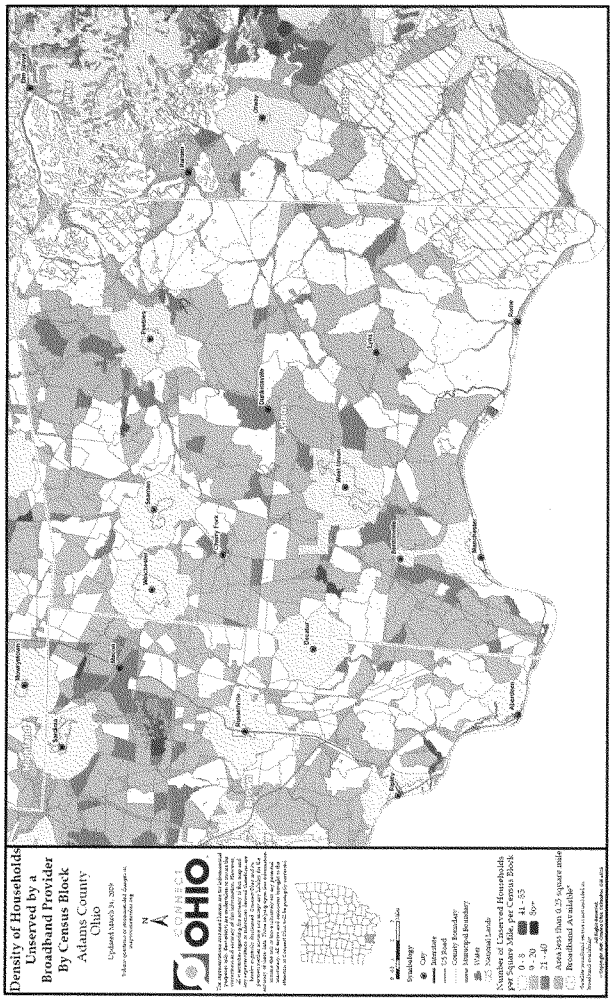
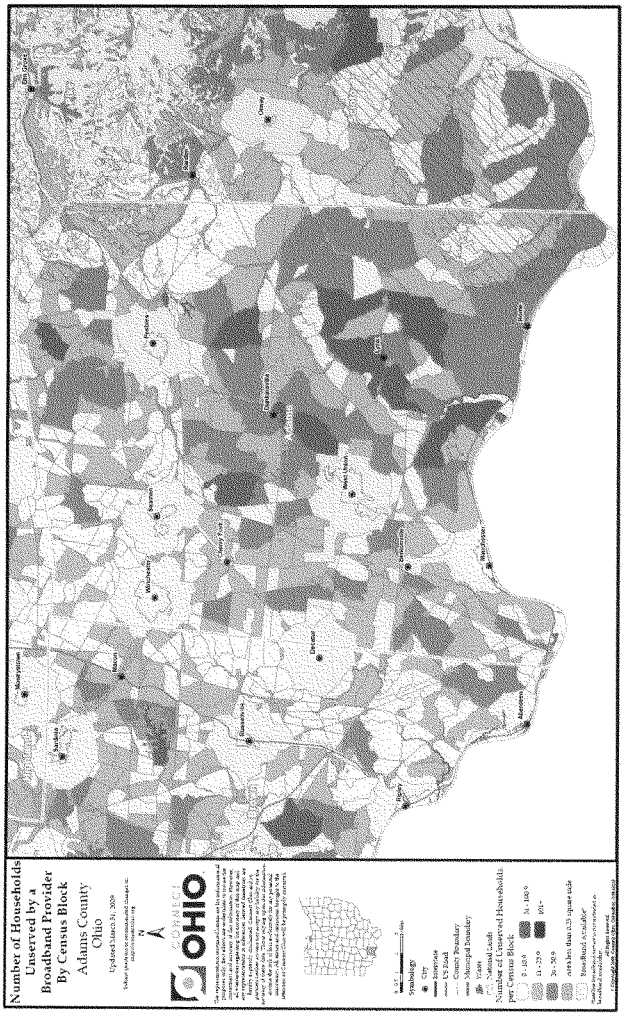
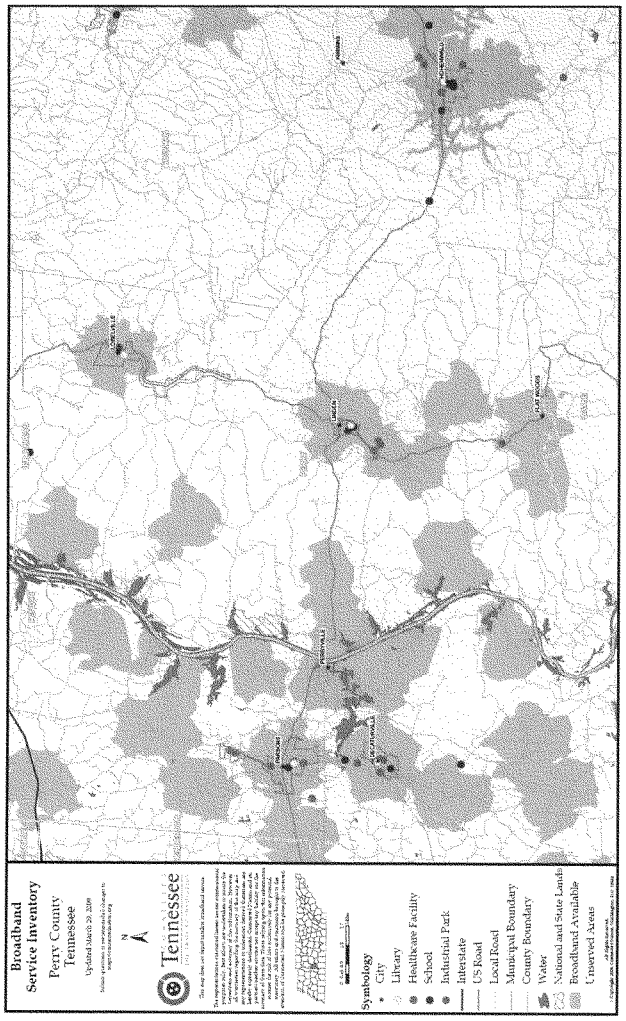

Density of Households Unserved by a Broadband Provider By Census Block
Adams County Ohio
Updated March 30, 2009
N
CONNECT OHIO
Symbology:
City
Intra-Lata
Tract Boundary
County Boundary
Municipal Boundary
Water
Federal Lands
Number of Unserved Households per Square Mile, per Census Block
0 - 3
3 - 30
31 - 43
44 - 55
56+
Area Less Than 0.25 square mile
Broadband Available
Manchester
Winchester
Seaman
Peebles
West Union
Lynx
Aberdeen
Rome
Sardinia
Decatur
Locust Grove
Tranquility
Bentonville
Cherry Fork
Stout
Lynx
Rome
Aberdeen
Sardinia
Decatur
Peebles
West Union
Winchester
Manchester
Locust Grove
Tranquility
Bentonville
Cherry Fork
Stout


Number of Households Unserved by a Broadband Provider By Census Block
Adams County Ohio
Updated March 31, 2008
Value of Broadband Service and Adoption at: ohioconnected.org
N
CONNECT OHIO
Symbology
City
Interstate
US Route
County Boundary
Municipal Boundary
Water
Navigable Lands
Number of Unserved Households Per Census Block
0 - 10.0
10.1 - 25.0
25.1 - 50.0
50.1 - 100.0
greater than 0.25 square mile
Broadband Available
Sandy Springs
Manchester
Peebles
Seaman
West Union
Winchester
Sinking Spring
Decatur
Hillsboro
Lynx
Locust Grove
Adams
Bentonville
Cherry Fork
Stout
Otway
Rosemary
Blue Creek
Sardinia
Shyrock
Lynx
Ripley
Aberdeen
Manchester
Peebles
Seaman


Broadband
Service Inventory
Perry County
Tennessee
Updated March 29, 2009
Tennessee
Symbology
City
Library
Healthcare Facility
School
Industrial Park
Interstate
US Road
Local Road
Municipal Boundary
County Boundary
Water
National and State Lands
Broadband Available
Unserved Areas

Computer Ownership by County for the State of Ohio

CONNECT OHIO

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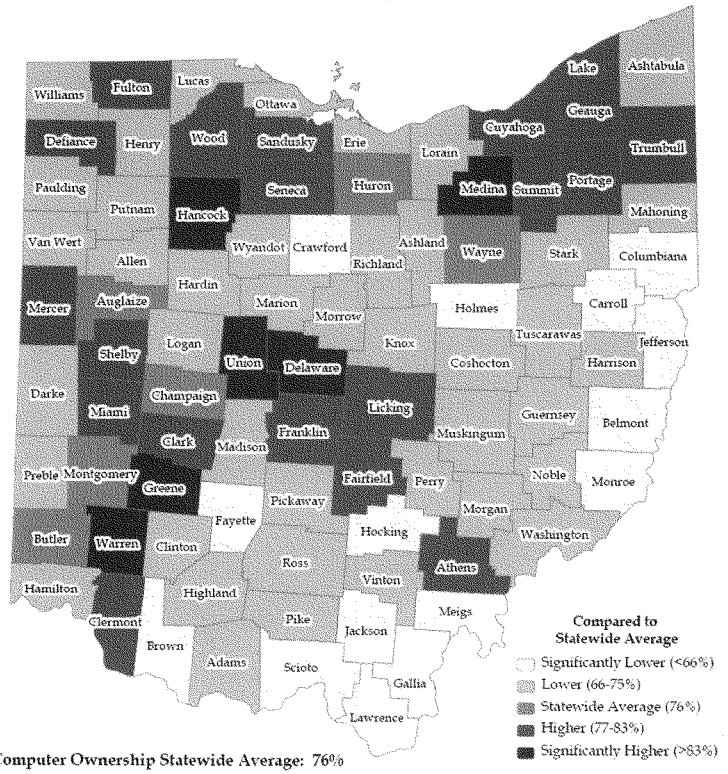

Computer Ownership Statewide Average: 76%

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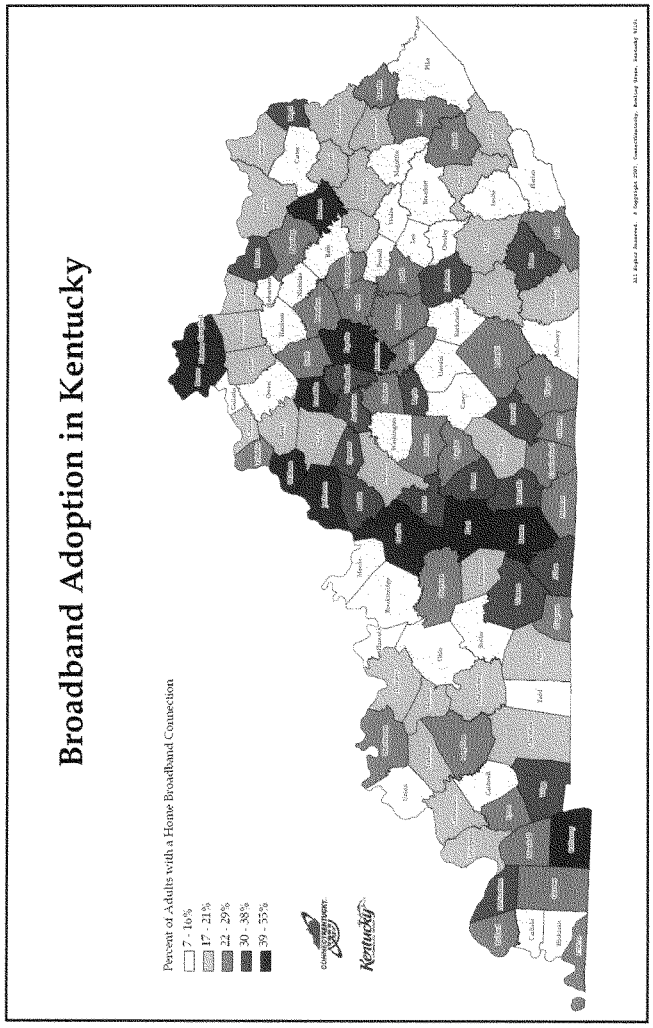
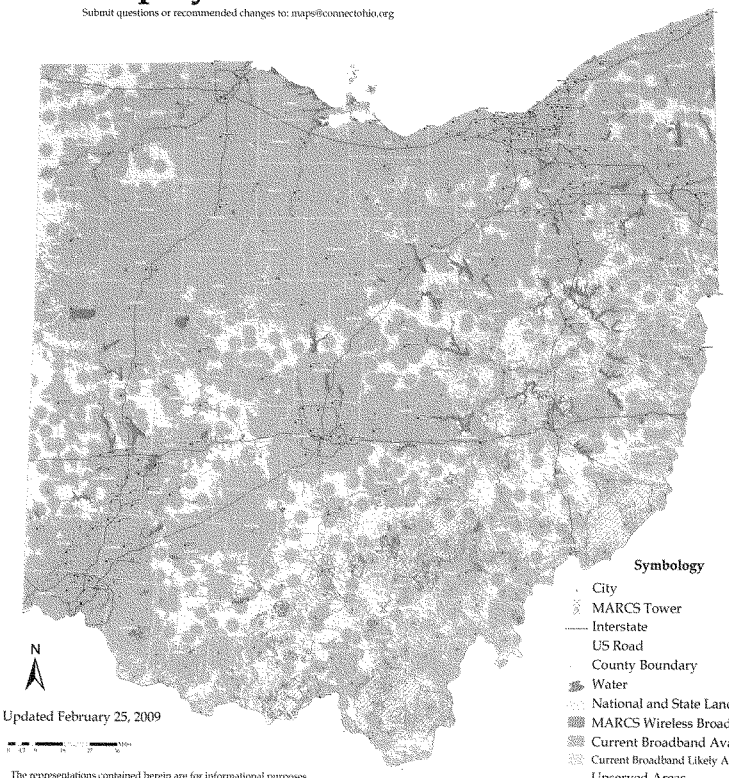

Broadband Adoption in Kentucky
Percent of Adults with a Home Broadband Connection
7 - 16%
17 - 21%
22 - 29%
30 - 38%
39 - 55%
Kentucky

Theoretical MARCS Tower Display at 900 MHz

CONNECT OHIO

Submit questions or recommended changes to: maps@connectohio.org



Symbology

- City
- MARCS Tower
- Interstate
- US Road
- County Boundary
- Water
- National and State Lands
- MARCS Wireless Broadband
- Current Broadband Available
- Current Broadband Likely Available*
- Unserved Areas

N

Updated February 25, 2009

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This map does not depict satellite broadband service.

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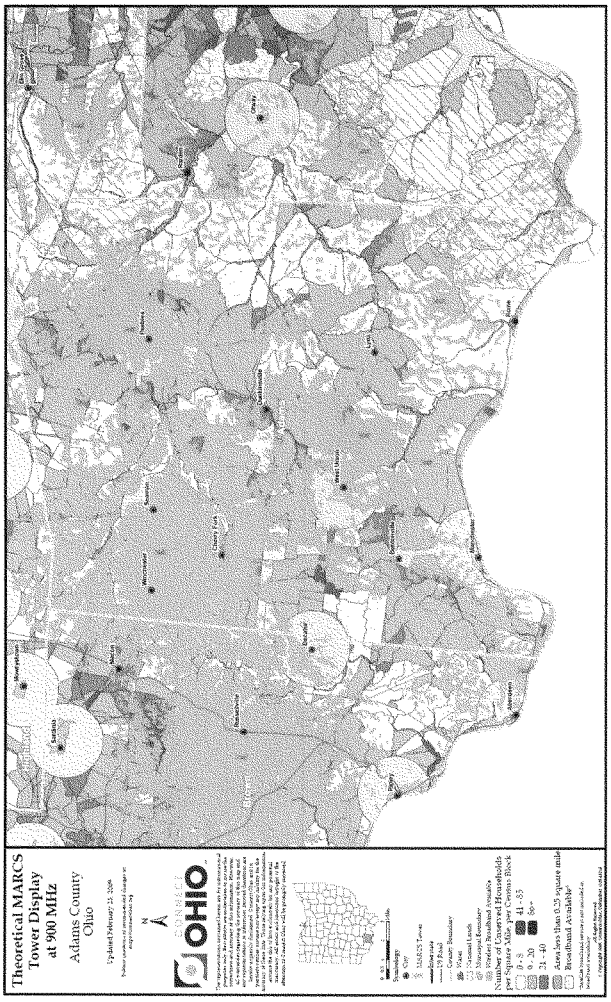
Theoretical MARCS
Tower Display
at 900 MHz
Adams County
Ohio
Updated February 23, 2006
CONNECT
OHIO
Towns
Tower
Interstate
US Route
County Boundary
State
Schools
Other Facilities
Potential Broadband Consumers
Number of Unserved Households
per Square Mile, per Census Block
0 - 5
6 - 20
21 - 40
41 - 85
86+
Areas less than 0.25 square mile
Broadband Available
Seaman
Winchester
Peebles
Sinking Spring
Manchester
Sardinia
Decatur
Tranquility
Bainbridge
Locust Grove
Lynx
Rocky Fork
Hillsboro
Beaver
Lynx
Rocky Fork
Hillsboro
Beaver
Lynx
Rocky Fork
Hillsboro
Beaver

Mr. WEINER. Thank you, Mr. Mefford.

Mr. Large, you are recognized for 5 minutes.

STATEMENT OF JONATHAN LARGE

Mr. LARGE. Thank you, Mr. Chairman and Ranking Member Stearns. I appreciate the opportunity today to share our story with you.

Patrick County was formed in 1791 and is currently home to 19,517 citizens. Patrick County is composed of 483 miles. The land is generally characterized as gently rolling terrain and the Blue Ridge Mountains and on the south side of the North Carolina border. The topographical changes cause distinct seasonal and temperature differences within the county. It is also the reason for Patrick County's beautiful scenery and varied outdoor recreation opportunities and some of its most renowned tourist attractions. However, it also creates a problem for Internet connection and cell phone reception. Patrick County has long depended on the textile and lumber business to provide the county's residents with job opportunities and employment benefits and a sense of satisfaction for a job well done. Our textile and tobacco industry has been devastated by a loss of jobs to foreign counties like many other communities in Southside Virginia and Piedmont North Carolina. There are empty factories which provided citizens with jobs for decades. Those plants now sit empty with little or no hope of any other such industry coming into the county to fill those buildings and offer employment to those who need work. Our residents have to leave the county and State in some instances to find employment where their skills can be utilized or the jobs they take require very little skills or training. This normally leads to lower wages to replace the earnings around which they build their household budget.

Our lumber industry has fed the housing market and other lumber industries such as furniture also. Since the housing market has drastically dropped, the demand for lumber is limited. Again, those who were lucky enough to find employment somewhere else normally had to take a reduction in take-home pay and thus the standard of living. The county is working hard to try to provide jobs for the residents that live there and also the remaining businesses. Our education foundation under the leadership of former Governor Gerald Baliles, a Patrick County native, has worked hard to bring us up in ranking from number 43 to 2nd among 45 Virginia rural counties based on population per 1,000. Eighty-five percent of our students that graduated high school last year went on to higher education as a result also yet one-third of our students have high-speed Internet access. The students need the capability to connect via high-speed Internet to do research or complete course assignments from their home. The schools simply cannot provide enough computers simultaneously for all students who want to use them.

We believe Patrick County must provide the infrastructure to build a network which will provide the broadband connections at affordable prices. Due to Patrick County's rural and mountainous nature, the Extension of Last Mile Telecommunications Initiative was enacted in 2000. The project, funded through grants from the Tobacco Commission, provided construction of the Mid-Atlantic

Broadband Project. Along with local providers, Patrick County completed an advanced fiber backbone along the main road arteries in the populated regions of the county. Although this improved backbone for high-speed Internet capability assisted local demand, as mentioned previously, with the mountainous terrains, peaks and valleys, it still resulted in large gaps throughout the county of unserved populations. It is important to have both wired and wireless broadband capability to fully serve the remote regions of the county. A recently completed broadband study confirmed that there is a significant unserved population for high-speed Internet. Based on the study, high-speed Internet itself will create a new business, employment and education advancement for our county. We have waited and fallen behind communities that have many choices for high-speed connectivity which will keep and bring new jobs to their people. We can wait no longer.

Changing economies in the industry have resulted in closing of textile and furniture factories within a 50-mile radius so jobs are unavailable to fill the void. We now have been forced to diversify. Some farms have converted to alternative farming such as cattle, small grain, and produce. However, these will never bring the revenue provided by manufacturing and tobacco production. Others that have lost jobs are finding ways to earn money by starting online Internet businesses.

We have high-speed Internet service to all our public schools in Patrick County but our students cannot take advantage of the system's full potential without high-speed Internet in their homes.

In January of 2007, our chairman of our broadband taskforce, Roger Hayden, worked with Representative Boucher to develop a plan for a USDA Rural Connectivity Grant, partnering with Embarq to supply high-speed Internet connectivity to the Claudville community. This also included updating our community building by building a 10-computer learning center and funded and operated for 2 years. Everyone in the community was very happy. We also worked with Embarq representative Rick Schollman. Everyone was upbeat about the progress. We had the survey reports ready for March 2008 broadband meeting. After all the groundwork had been done, another Internet provider in the area came forward to the meeting and said that they had established a presence in this area and were supplying high-speed Internet service to the Claudville area. Therefore, the community was ineligible for a grant because the program rules stipulate that there could be no high-speed service in the area. There was disappointment after all the preparation. Our hopes of receiving a grant were thwarted. We read the RUS requirements regarding existing service and confirmed that high-speed Internet service to one household was enough to make the entire Claudville community ineligible for the grant. This was some time back now, and the company has still not served any households other than the one.

The Claudville experience is an example of the importance of having a reasonable definition of "unserved" and "underserved." In this case, the definition of "unserved" used by RUS could be construed as overly restrictive because if just one or two households in a community have access to broadband, RUS considers the community served and it is not eligible for——

Mr. WEINER. You can start to wrap up, Mr. Large.

Mr. LARGE. Okay. And is ineligible for grant programs. Communities should not be disqualified from receiving stimulus support on the handful of homes in an otherwise unserved community to have access to broadband.

Thank you again.

[The prepared statement of Mr. Large follows:]

TESTIMONY OF JONATHAN LARGE
DAN RIVER DISTRICT SUPERVISOR
ARARAT, VIRGINIA

The County of Patrick was formed in 1791, and it is currently home to 19,517 citizens. One third of Patrick County is in the rolling Piedmont plateau, and the remaining two-thirds is the picturesque Blue Ridge Mountains where the Blue Ridge Parkway forms the County's western border with Carroll and Floyd Counties to the north.

Patrick County is composed of 483 square miles, and the land is generally characterized by gently rolling terrain. The population density is 40 people per square mile. There are 9,823 housing units at an average density of 20 per square mile. The per capita income for the county is $15,574. About 9.6 percent of families and 14.4 percent of the population are below the poverty line; the current unemployment rate in Patrick County is 11 percent, which is almost double the state average. Patrick County is located at a juncture of the rolling hills of the Southern Piedmont and the crest of the Blue Ridge Mountains, making a portion of the county steep and uninhabitable. This topographic change causes distinct seasonal and temperate differences within the county. It is also the reason for Patrick County's beautiful scenery, varied outdoor recreational opportunities, and some of its most renowned tourist attractions. However, it also creates a problem for Internet connections and cell phone reception. No outside waters flow into Patrick County; all five rivers that leave the community have their headwaters here. Elevation change in Patrick County rises from a low of 800 feet near Critz to a high of 3,400 feet near Meadows of Dan.

Patrick County has long depended on the textile and lumber businesses to provide the county residents with job opportunities and employment benefits and a sense of satisfaction for a job well done.

Our textile and tobacco industry has been devastated by the loss of jobs to foreign countries, like many other communities in Southside Virginia and Piedmont North Carolina. There are empty factories which provided our citizens with jobs for decades. Those plants now sit empty with little or no hope of any other such industry coming into the county to fill the buildings and offer employment for those needing to work. Our residents have to leave the county and state in some instances, to find employment where their skills can be utilized, or the jobs they take require very little skills or training. This normally leads to lower wages to replace the earnings around which they built their household budgets. Many are living on much less than before.

Our lumber industry fed the housing markets and other lumber industries such as furniture. Since the housing market has drastically dropped, the demand for lumber is limited. Again, those who were lucky enough to find employment elsewhere normally had to take a reduction in take-home pay and thus their standard of living.

The county is working hard to help our residents and support those businesses that are still employing county residents. We are seeking new businesses, but no large companies are in our sights to provide a significant number of new jobs. We have programs in our local schools that offer our students the opportunity to graduate

from high school with a high school diploma and an Associates Degree. This means the students have the opportunity to further their education by using the earned credits to go to a four year college or to get higher paying jobs with their advanced degree. The students need the capability to connect via high speed Internet to do research or complete course assignments from their homes. The schools simply cannot provide enough computers simultaneously for all the students who want to use them at school.

Unless the county can provide jobs within the county for these students, they will leave the area to find employment that will utilize their newly learned skills and pay good wages for the work. Some of these students may also become self-employed or may become entrepreneurs and will need affordable high speed Internet to become competitive in the marketplace. If the county has any hope of recruiting new companies to the area, high speed Internet connectivity is an inherent demand to be met. The company itself will need affordable high speed connections to run their business. If it is not available, they will not come. The new companies will bring new residents to the county. Those residents will most likely be familiar with broadband connections at their homes. Some may even be or become remote workers, but only if they can connect to the office through the Internet.

For those residents who have lost their jobs, learning new skills is mandatory to find almost any employment. In some cases, they may need to complete their GED. Others may need training in certain technical skills while others seek to complete degree courses or seek higher degrees such as a Masters Degree. All can be accomplished from their homes if they have broadband Internet available. This reduces the amount of time they are away from home and their families. It also reduces the expenses of gas and automobile usage because they do not have to drive to the actual campus or training facility. Many people have not been in a classroom in a long time and are intimidated by the thought of having to be in a room with others who they believe to be so much smarter than themselves. If the amount of classroom time is greatly reduced, we fully believe many more will seek educations to help themselves and their families. These same people, once they have become Internet "savvy," will seek more knowledge, do more research and may find employment over the Internet or work from home.

If Patrick County provides these types of opportunities to our citizens and businesses, we keep our current residents, our students and our businesses. We start new businesses or attract new businesses to our area, which provides employment for our people. Those businesses will spawn other businesses and more employment. Home purchases will rise to fill the need for housing, which can then fuel our lumber industry. Our tax base should increase as a result of more jobs, more people and more businesses, all which will then fuel other local companies in retail and service industries.

We believe Patrick County must provide the infrastructure to build a network which will provide the broadband connections at affordable prices. Due to Patrick County's rural and mountainous nature, the Extension of Last Mile Telecommunications Initiative was enacted in 2000. This project, funded through grants from the Tobacco Commission, provided construction of the Mid-Atlantic Broadband project. Along with local providers, Patrick County completed an advanced fiber backbone along main road arteries in the populated region of the county. Although this improved backbone for high speed Internet capability assisted local demand, as mentioned previously, with the mountainous terrain of peaks and valleys, it still resulted in large gaps throughout the county of unserved populations. It is important to have both wired and wireless broadband capability to fully serve the remote regions of the county. A recently completed broadband study confirms that there is a significant unserved population for high speed Internet. Based on the study, high speed Internet itself will create a new business, employment and education advancement for our county. We have waited and have fallen far

behind communities that have many choices for high speed connectivity which keep or bring new jobs to their people. We can wait no longer.

CLAUDVILLE COMMUNITY EXPERIENCE

Claudville was once one of the largest tobacco producing communities in Patrick County. It is situated in the South West corner of Patrick County adjacent to the North Carolina State line and is both geographically and demographically challenged. State Highway #103 transverses into NC through the heart of Claudville and according to DOT has a greater percentage of Commerce, (Transfer Truck traffic) than any of the other major roads in Patrick County. The demise of tobacco production brought on by external forces has been detrimental to this rural area. A way of life for generations of tobacco farming families is forever gone. Small business that once supported tobacco farmers with workers, services, and supplies met the same fate.

Changing economies in the industries have resulted in the closing of the textile and furniture factories within a 50-mile radius. So, jobs are unavailable to fill the void. Now we have been forced to diversify. Some farms have converted to alternative farming such as cattle, small grain, and produce. However, these will never bring in the revenue provided by manufacturing and tobacco production. Others that have lost jobs are finding ways to earn money by starting on-line Internet businesses. Active, small in-home businesses are still in the community.

We have high speed Internet service to all our public schools in Patrick County, but our students cannot take advantage of the systems full potential without high speed Internet in their homes.

- EXPLANATION OF RURAL CONNECTIVITY GRANT FAILURE

In January of 2007, Roger Hayden, Chairman of Patrick County Broadband Taskforce, worked with Representative Boucher to develop a plan for a USDA Rural Connectivity Grant, partnering with EMBARQ to supply high speed Internet connectivity to the Claudville community. This also included updating our Community Building by building a 10 Computer Learning Center and funding to operate for 2 years. Everyone in the Community was very happy; finally we had gotten a break. I had worked for over a month with EMBARQ and [explain who Richard Schollmann is]. Everyone was upbeat, everything was in order and no problems were foreseen. We knew there was fiber up the Route 103 corridor; however, it was not being used to provide high speed broadband service, so that was not a concern with respect to applying for the grant.

We had the Survey reports ready for a March 2008 broadband meeting [with who?]. After all of the groundwork we had done, another Internet provider in the area came forward in the meeting and said that they had established a presence in this area and were supplying high speed Internet service to Claudville. Therefore, the community was ineligible for a grant because the program rules stipulated that there could be no high speed service in the area.

There was disappointment that after all of our preparation, our hopes of receiving a grant were thwarted. We read the RUS requirements regarding existing service and confirmed that high speed Internet service to ONE house was enough to make the entire Claudville community ineligible for a grant.

This was a couple of years ago, and the company that was serving a single household has not provided fiber up the main road, with nodes, and they are not even providing high speed Internet service to homes on the side of the road they already serve.

The Claudville experience is an example of the importance of having reasonable definitions of "unserved" and "underserved." In this case, the definition of "unserved" used by RUS could be construed as overly restrictive, because if just one or two houses in a community have access to broadband, RUS considers the community "served," and it is ineligible for its grants program. Communities should not be disqualified from receiving stimulus support if only a handful of homes in an otherwise unserved community have access to broadband.

I want to thank you for the opportunity to inform the committee about Patrick County, Virginia and how we believe the recovery and stimulus initiatives can help us with our broadband needs in order to stimulate our economy and better educate our families at home.

Mr. WEINER. I thank all the witnesses. I yield myself 5 minutes.

There is no doubt that the gray areas in Mr. Space's chart and the unserved areas that we obviously need to address those. It seems to me you are going to have some tough questions about the notion of underserved. Is it the intention to allow communities that might have Wi-Fi already experiment with WiMAX, experiment, college campuses, for example, experiment with some of the next generation of technology. I know, Commissioner Chong, you said there is a basis against that use in California, to first try to serve those that are underserved. But Mr. Seifert, is it your sense—I know that the regulations haven't been written but that is going to be an opportunity for us to experiment with perhaps the next generation of Wi-Fi as well?

Mr. SEIFERT. Well, Congress has been very clear. In fact, in the committee report for this section of the Recovery Act, they said that it was the—both the House and the Senate said that they believed next generation would reach more people at greater speeds. Again, as you noted, we haven't made any determinations. We are waiting to hear from the public. I can tell you that we have heard a range of opinions about that including the one that you have expressed that if we are going to build, we should use next generation, if we are going to invest money in the future, and as I said in my statement, we are talking about proof of concept. Folks are looking to invest in scalable or things that can continue to develop, not dead-end technologies but technologies that can continue to expand and bring greater——

Mr. WEINER. But WiMAX is not a brand-new thing. I mean, there are other nations that have higher, fatter pipes than we do so it is not like it is completely unheard of. So if someone presents—again, this is all subject to rules that haven't been made yet. But if someone presented to you the notion, you know, we want to make this corner of Tucson, Arizona, a test, although we have Wi-Fi, we are not like Mr. Large's community, that we have Wi-Fi that is accessible but this college campus, for example, comes and says we want to be a laboratory to see just how, what kind of businesses would pop up if we really had expanded access. Again, without prejudging what the regulations would say, there is nothing in the Act that prevents this money from being used for that purpose?

Mr. SEIFERT. No. My recollection would be that there is nothing in the Act that would prevent that. There are things in the Act that would say is this sustainable, is this a working business model, those sorts of things which we would use to test all applications and so I think you are correct that there is nothing that would prevent that sort of application pending whatever rules we put in place about how those applications are going to be received.

Mr. WEINER. Thank you.

Mr. Stearns, you are recognized for 5 minutes.

Mr. STEARNS. Thank you, Mr. Chairman.

Commissioner Chong, you had indicated in your opening statement how critical the step is for mapping, and if States start today with broadband mapping, can the applicants still meet the deadlines set forth in the Act?

Ms. CHONG. Oh, I think so. Just to give you an idea, it took us about 7 months total. Three to 4 months was convincing the carriers to voluntarily give us the data, and they did that once we agreed to have an independent third party take the data, aggregate it and then give it to the government agencies to protect confidential data. In terms of mapping, it went very quickly. We had street-address-level mapping so it is very granular, more so than what is being required at the FCC today, and it took us about 3 to 4 months to map the entire State, and we are a big State, and we used mapping personnel who was at a State health agency. He was the only guy we had, and he was doing it literally nights and weekends and it took 3 to 4 months. So if he had been working full time on it, we probably could have gotten it done a lot faster.

Mr. STEARNS. Mr. Mefford, how long do you think it will take? I mean, she did California, but do you know how many States have already been mapped?

Mr. MEFFORD. There have been roughly 10 States that have——

Mr. STEARNS. So out of 50, there is 10 that have. Can we do it in less than 6 months here?

Mr. MEFFORD. We actually can. I mean, if the Nation—well, 6 to 9 months is a reasonable time frame to have the entire country mapped down to the household level.

Mr. STEARNS. Mr. Chairman, I ask unanimous consent to enter into the record a paper by the National Cable and Telecommunications Association which notes that 9 to 10 million American households are unserved by broadband, and that is, that are in areas that lack physical infrastructure for broadband.

Mr. WEINER. Without objection.

Mr. STEARNS. NCTA recommends that the Act funds be prioritized to serve these unserved areas rather than the 90 percent of the country that has broadband availability. Let us start with you, Commissioner Chong. What do you think about that?

Ms. CHONG. Well, I think the Act clearly says we have to do both. I did in my State put a priority on unserved first, so we opened a filing window only for unserved first. Then secondly we opened a filing window for underserved.

Mr. STEARNS. You heard Mr. Mefford mention that there is lack of interest. I mean, 90 percent available, 60 percent. What were your figures? Ninety percent available and 60 percent?

Mr. MEFFORD. Roughly 57 percent, according to Pew data.

Mr. STEARNS. That are actually——

Mr. MEFFORD. That are actually subscribing to it, yes, sir.

Mr. STEARNS. So you would have a large percentage that just really—it is available but they are not interested in having it, right? So how do you deal with that?

Ms. CHONG. Well, we have been dealing with that, and the way we have attacked it is, we have opened community technology centers in some of the underserved or disadvantaged communities. We also have programs teaching seniors how to use a computer and access e-mail. We have been refurbishing computers through programs, taking donated computers from businesses, refurbishing and then getting them out for about $100, $200 into low-income communities. So these types of demand-side stimulation have been working in California and we submitted some statistics to you from

our Emerging Technology Fund to show that in really just a year and a half, they have reached out and touched thousands and thousands of Californians' lives so it is doable.

Mr. STEARNS. Okay. Mr. Seifert, what do you think of Mr. Mefford's and Commissioner Chong's idea that we can do it in less than 6 months, the mapping of all the 40 States?

Mr. SEIFERT. Again, and I don't—we are in the middle of receiving all these comments and I hope, I believe California has filed or is filing it and I am hoping that the other folks are filing. We are looking at these issues very closely. We know that——

Mr. STEARNS. Just offhand, would you say you can do it?

Mr. SEIFERT. I don't know because I haven't seen and reviewed the whole record but I know that the stimulus act says that our primary job is to——

Mr. STEARNS. Commissioner Chong, you admitted it took you 2 or 3 months once you got going to map it, right?

Ms. CHONG. Yes.

Mr. STEARNS. Okay, so if you got 40 States to do and Seifert has to do this, I don't know how he could possibly get it done by the 30th of September.

Ms. CHONG. Well, the first thing is, you need to have clear standards about what the mapping is going to cover and that needs to happen first.

Mr. STEARNS. Do you have those in place?

Mr. SEIFERT. That is part of the rulemaking is, what level of granularity, what things should we look at. We have 11 maps right now of different States but it is a map of apples, oranges, pears because people have done things differently, so for a national broadband map, you would need something that uses all the same data points in order to get a real picture so you would know when you are looking at Kentucky versus Ohio versus Indiana that you are comparing apples to apples to apples.

Mr. STEARNS. I note that the NTIA has considered sustainability to be a critical part of consideration of grant proposals, and that is good. What evidence will NTIA look at to determine whether a project will not require additional taxpayer money once the Act funds have been spent, and will you commit to require all projects to be sustainable to be eligible for funding so you are not coming back, you know, like the DTV, keep coming back for more money?

Mr. SEIFERT. The Act says look at sustainability, look at viability, and we intend to fully implement the Act as Congress drafted it or has enacted it, and sustainable is important because these are supposed to be test bed proof of concept for down the road, and if you have a project that can't live on its own after the 2 years, that may not really teach us all the lessons we need to know in order for future investments to take place so it is a very serious consideration. We are receiving comment from across the board about how to test that, how to demonstrate the projects are workable and workable.

Mr. STEARNS. Thank you, Mr. Chairman.

Mr. WEINER. Thank you, Mr. Stearns.

Ms. Christensen, you are recognized for 5 minutes.

Ms. CHRISTENSEN. Thank you, Mr. Chairman, and thank you to all of the panelists.

Mr. Seifert, among the recommendations from MMTC, which I am sure would be seconded by the Alliance for Digital Equality, is that minority-serving institutions should not be expected to meet a 20 percent match in the BTOP, and there is precedent set in at least one other section of the ARRA. Do you see any barriers to waiving this match in this or any other special circumstances?

Mr. SEIFERT. The statute clearly contemplates waiver where parties demonstrate financial need, and I take your point very seriously. We had this discussion at one of our field hearings where tribal interests were represented and the issue came up and it was a matter of great debate amongst the tribes themselves about whether if you did not require the match, wouldn't that shorten the amount of dollars you could get out, it might shorten the number of tribes you could reach, or if you did require the match, that would allow you to stretch dollars further. So that is kind of the range of debate we are seeing about this, and then other folks have said what about if I give you staff, does that staff account for, and so we are looking at those issues and trying to make sure that we figure out the best way to make the most of—out of these dollars and to get this—to stretch these dollars as far as we possibly can.

Ms. CHRISTENSEN. Thank you. And again to Mr. Seifert and Mr. Villano as well, Representative Rush mentioned his amendment that says consider whether an applicant is a small, disadvantaged business under the Small Business Act section 8A. Civil rights groups suggest a point system where you would give extra points to a disadvantaged business applicant or subcontractor. Is that possible? Is that something you would support? I noted in some meetings that we had with the agencies overseeing TARP and TALF that even though some of them had some outreach to disadvantaged business, they really didn't have any way to monitor it or to make sure it happened. So is a point system possible and are you able—do you have goals set and a way to reach those folks?

Mr. SEIFERT. A point system is certainly possible. So that is part of the selection criteria or the evaluation of prioritizing and so we are definitely looking at that. We have received comment on that. We had a number of members from the MMTC group on our panels to talk about those very issues. One thing I am excited about is really, we have a subdivision of my agency, the Minority Business Development Agency, that we are working with very closely that has some great staff. That is in Commerce. And then within my agency, we have the Minority Telecom Development Program. So I have gone to them already and asked them to develop a program to make sure that we have outreach, that when folks who are doing these projects are either looking for contractors that they have the ability to marry up those interests with these people who want to provide this. So it is our intent to make sure that there is a wide-open door for folks to walk through and participate in this program.

Ms. CHRISTENSEN. And are you the same?

Mr. VILLANO. Definitely the same. We are looking at all those options also.

Ms. CHRISTENSEN. Ms. Turner-Lee and Mr. Mefford, I had the same question about growing demand. Everybody talked about the

need to grow demand and I wonder if you had anything to add to what Commissioner Chong spoke to.

Mr. MEFFORD. Yes, ma'am. Thank you for the question. I will reference how important it is to carry out these activities at the very local level and so part of what we do is build community technology leadership teams. We call them e-community leadership teams and they bring together a cross-segment of the local community and so you have local elected officials and folks representing the health care sector and education and agriculture and on down the line, tourism, et cetera, and they own their local plan for how they are going to use the broadband once it becomes available and so as we work to help school districts figure out how they could improve their product and their educational system with broadband, that then sparks a community-wide interest in people owning computers to be able to take advantage of that while the local school district is investing. Specifically from Tennessee, I want to note that our program there after 18 months of that kind of activity, home broadband adoption has increased by 26 percent compared to 15 percent growth nationally, and underserved populations have seen actually the largest increases in adoption in computer ownership, particularly among the demographics where we sort of micro-targeted so we have had——

Ms. CHRISTENSEN. Right. My time is running out. Thank you for your answer. I would like to let Ms. Turner-Lee get a few seconds in.

Ms. TURNER-LEE. To echo Mr. Mefford's comments on growing demand, I mean what we do in our work daily is to figure out how to deal with that side of the equation, and I think we can again build it but it doesn't necessarily guarantee that the value proposition is there for potential consumers. I would like to just suggest as we look at programs to fund that we think in scale. Many things that we do from the stuff that we are doing in housing to ensure that where people live that there is a connection that is tied to their ability to get resources from government services, from educational outlets where people also—where you can engage young people. Young people serve as a catalyst in many neighborhoods. Our digital connector program, which has reached almost 3,000 youth to date, those kids have provided 56,000 hours of community service teaching their neighbors about technology. Applications—we have not talked yet about the application side of broadband. Once the broadband is available, what will people do on it. We have been very successful at creating what we call public purpose media applications, much like public broadcasting, to digitize that space and ensure that people get the resources that they need. So I would just encourage us to think bigger in terms of institutionalizing any efforts that we do on the adoption side.

Mr. WEINER. Thank you.

Ms. CHRISTENSEN. Thank you, Mr. Chairman.

Mr. WEINER. Ms. Matsui, you are recognized for 5 minutes.

Ms. MATSUI. Thank you, Mr. Chairman.

I want to get back to the issue of broadband mapping, which I believe is really very important as this process moves forward, and obviously Ms. Chong was talking about California, which I am very proud to be from, and it is one of the few States that have a

broadband mapping system in place to determine which areas are in need of expanded broadband service. Now, that being said, you told us, Ms. Chong, how long it took you to put it together. How much did it cost the State of California to do this?

Ms. CHONG. We paid the outside contractor $360,000 to collect the data from the broadband providers and aggregate it, and then we had a State employee, who was a GIS mapping expert, spend time actually creating the maps, both regionally and on a State level, and his time we believe was worth about $71,000. So I think it puts the cost of the map for all of California, which is a big State, a little over $400,000.

Ms. MATSUI. Okay. Thank you.

Mr. Mefford, how much money are you recommending NTIA to give to each State for their mapping?

Mr. MEFFORD. We haven't yet made that recommendation but it is a great question, and I think the California example is a good model. We would expect a similar cost per State, and so it is a good question, particularly because there is a lot of feeling and discussion around that $350 million being just for mapping but in fact a very small fraction of that $350 million will pay to create a national map.

Ms. MATSUI. So you haven't yet determined how you will divide up the funding for this and it is not determined on the size of the State exactly then? Because California is a big State.

Mr. MEFFORD. It is. I mean, the cost for a State map is going to depend on State size, it is going to depend on population, it is going to depend on the number of broadband service providers who are there, but really $10 million roughly to start a first phase, a baseline map, that is a reasonable kind of figure to have in mind.

Ms. MATSUI. Okay. Commissioner Chong, California is considering using its own broadband grant fund. It is a 20 percent for entities within the State. What is California's process for identifying potential matching grant recipients for the broadband program?

Ms. CHONG. We go out and we beat the bushes to tell everybody we have got a program. That is the first thing, a lot of outreach. And then secondly, we have set criteria of what they need to do to apply, which I put in my testimony. You know, we look at a lot of things. One of the most important things we look at is how many people they are going to cover, the area they are going to cover, how much cost that is per household, and we also look at their speeds because speed does matter, and then finally we look at their pricing. We have a little extra goody point for them if they will commit to a price for at least a year and we also give them another goody point if they will give a special price to low-income persons in that area, and then we basically just crunch the numbers and decide what to approve.

Ms. MATSUI. Okay. Thank you. I want to go on to, let us say we are successful, I think about 96 percent of California residents have access to broadband, but let us talk about adoption because you could have it there but if it is not adopted, it is no good either, and in most cases adoption rates are associated with income as seen in the 2007 data from the Public Policy Institute in California, that only 51 percent of Californians earning under $40,000 a year subscribe to either dial-up or broadband at home but over 95 percent

of those earning over $80,000 or more subscribe to either one of these services.

I have a question for Mr. Seifert. Considering that a large part of the funding of the broadband initiative will be targeted to rural areas, how will the grant programs address urban areas?

Mr. SEIFERT. I first want to make sure that folks understand that we are trying to work together to make sure that the rural program and NTIA's program work together and it is one of those fundamental things that broadband pipes don't really understand borders, and that folks are trying to connect rural areas to urban areas. So the demand side is very important but I think we have to make sure that we don't forget that there are urban areas that are also underserved, or if they have been functionally redlined, you could say they probably are unserved. If a person in an inner city can't afford the price of broadband, that person is not served with broadband. So those are things we are looking at. We are seeking comment and we have heard lots of comment in our panels.

Ms. MATSUI. So you will—income will be considered as far as the definition of underserved then?

Mr. SEIFERT. We are certainly being encouraged to do that. I can't tell you that we have decided one way or the other but that is certainly part of the public commentary.

Ms. MATSUI. Okay. Thank you very much.

Mr. WEINER. The gentleman from Illinois, you are recognized for 5 minutes.

Mr. SHIMKUS. Thank you, Mr. Chairman. Sorry I am late. I have Thomas Denenberg, who is a student in my district, and it is interesting that his father is a captain in the fire department in one of my communities so he asked me what my role was in that sector, and as a lot of people know on this committee, you know, I deal with the 911 caucus and this kind of segues into this, and this is serendipity. I didn't plan this. But it works out well because Mr. Seifert, talk to me about the PSAP issue and the deployment. And then I would like to know from Mr. Villano, the debate, is this NTIA money or RUS money?

Mr. SEIFERT. Certainly. I will do mine and then pass it to Dave. We had the western regional coordinator for NINA on a panel. She spoke about the need to make sure that when we put big broadband pipes in, that public safety had access to that. You know that is the next generation of PSAP is that if I am on my BlackBerry and I want to send something in, right now if you are not next-generation coordinated for your PSAP, you can't get that information in. Folks—deaf students at Gallaudet who use BlackBerries can't call that in, they can't call into the 911 thing until we get the PSAPs upgraded so that is a very important part of what Congress has told us we need to do, is to make sure we are looking at how to track public safety including the PSAPs into those issues.

Mr. SHIMKUS. So both would be involved. Which pot of money? I mean, who is doing it?

Mr. VILLANO. It can be either pot of money. I mean, we are looking at it as one pot of available funds and wherever we can best serve the needs of the applicant, we would try to fund it from either source.

Mr. SHIMKUS. Based upon a description of the area by which we are—great. Thank you.

We have had a great debate, and I missed some of this, and it is great to have Commissioner Chong here because of what California has done on this whole unserved debate, which is just critical because there are areas that aren't served and they need to be served, and I think that is the first place that we should be going, and I think my colleague from Ohio talked about the areas in his district. I have areas that aren't served. I would just lobby in support of making sure that we connect everybody with something before—and I do know there is a speed issue too of what speed—you know, dial-up, I don't think you can really call dial-up-only service being served. But if they have high speed, I am not sure—I would be careful about moving in that direction before you put money in the unserved areas.

Mr. Seifert, if you already have access to 10 broadband maps, why not just distribute money based upon those areas first?

Mr. SEIFERT. So one issue we have is making sure that the maps are telling us what we need to know. There are different levels of granularity. There are different issues that the different folks mapping looked at, and in order for us to have a national broadband map, we need to make sure that everybody is giving us—some of these folks may have to go back and tinker with what they have already done to submit that, so that is part of our focus right now is to get that information out.

Mr. SHIMKUS. And I would say it would make sense to me if we know, then we ought to put money there first.

Ms. Chong, I kind of mentioned you earlier. Would you agree with some of those premises?

Ms. CHONG. Yes, I would. I really think that we would have wasted some of our money if we hadn't done our mapping first, and we learned it from Connect Kentucky because I went out there and did a field trip out there and I realized the importance of really knowing with granularity where those areas were, and they showed up in places you wouldn't expect. I had an unserved area in the middle of Silicon Valley. I mean, why? But we filled that one. So you never know.

Mr. SHIMKUS. Yes, and we have had a lot of hearings on Connect Kentucky. Of course, the southern part of my district abuts Paducah so we have been following that, Connect SI, trying to do southern Illinois, trying to do very similar to that aspects, and that is why we know there are areas that aren't served, period, and we know them now.

My last question, Mr. Chairman. Mr. Villano, Mr. Seifert, Mr. Deutchman states we will have a consultative role in awarding of grants but they are also potential recipients. How will the agencies account for the conflict of interest?

Mr. SEIFERT. I think asking the States, you know, their opinion about how things should be done is like asking the public how they believe things should be done. Many of the public that have submitted comment are going to be applying for grants. There are folks on this panel that are probably going to be applying for grants. So we can take all that public commentary and analyze it and then set up competitive criteria, a gold standard that you com-

pare all those applications coming in to. They have to meet the test that the statute sets out.

Mr. SHIMKUS. Okay, Mr. Chairman, if the other two can answer and I will be done.

Mr. VILLANO. I would agree 100 percent with that.

Mr. DEUTCHMAN. I would just—they will be making the grants what they perceive reasonable.

Mr. SHIMKUS. Yes, our biggest challenge is trying to follow the money and follow the money that you guys are apportioning through the States, and my guys at the grassroots level are trying to figure this out because we have people asking. Because I think we are going to be trying to account for the dollars as they get passed out. Thank you, Mr. Chairman.

Mr. WEINER. The gentleman from Ohio, Mr. Space.

Mr. SPACE. Thank you, Mr. Chairman.

First of all, I would like to thank Mr. Mefford for being here and the good work that they have done, primarily with the mapping strategies, not just mapping, however, and is your father also involved in Connect Kentucky?

Mr. MEFFORD. He is. He was actually one of the original organizers of the Connect Kentucky initiative.

Mr. SPACE. Please extend to him my gratitude for his help. He has been to Ohio a couple of times to help with our projects.

I have some technical questions I would like to direct to Mr. Seifert and Mr. Villano about the process, I think touching upon something that my colleague brought up earlier about the match, the 20 percent match. I am hopeful that you will undertake a liberal interpretation of the term "financial need", one that is not overly restrictive, because of the clear economic impact that this technology brings to an area and the fact that almost to, you know, every single region where you have got underserved areas, you have got poverty, and those are the areas most in need clearly, the poorer areas, that in many cases would not be able to afford the 20 percent match. I am also hopeful that you will be willing in your interpretative process to broadly define the types of monies or services that can be applied toward that match, whether it is in-kind services or other grants, for example, the FCC grant that is now operating in the Southern Ohio Health Network. We would like to ensure that that could be seen as an offset because that is part, for example, our plan, our four-stage plan. So I am optimistic you will understand that the areas most in need are the last that should be precluded from qualifying because of their access to money.

I am curious about the process. Well, I know that wasn't a question. The questions that I have, have to do more with the process, and I know you are going to be going through this rulemaking process and we are going to have three levels of funding and all that, but at the point where someone or some entity or some group of folks may submit a plan to you, presumably sometime this summer, what kind of process do you envision? Who will be the final arbiter? What kind of deference will governors, for example, be given, local government officials? How do you envision that process from a more practical perspective panning out?

Mr. SEIFERT. So again, we are hearing from folks about what they think we should do and one of the major comments they have made to us is, make it understandable for applicants. You shouldn't have to be a very sophisticated applicant to apply. We should go to small communities. Innovators should be able to apply. So that is one of our driving concerns. The statute establishes some threshold criteria about how we need to evaluate these and then we are looking to what the public has said about other criteria. The statute doesn't talk about deference to any particular body. It says look for sustainable, look for the greatest speed, the greatest populations, those sorts of, I think we would call just standards so that any application can stand next to any other application. You compare it to that standard and see how it matches up. Someone mentioned earlier a point system. You know, I could imagine where at the end of this notice and comment we say you get X points for the following things or you get a scale of zero to some points, but we are still trying to figure all that out. Our goal is to get that out in a way that is understandable and then after the rule comes out is to go out into the communities and do training on how the application works.

Mr. SPACE. And do you envision an effort, a conscious effort to ensure that these funds are distributed on a relatively widespread and State-by-State equitable basis? I mean, obviously based on needs but is there going to be an intent to ensure that this is spread out, notwithstanding those standards? I understand you may have 10 or 12 worthwhile projects in central California but we would like to make sure that this money is evenly disbursed in those rural areas. Is there going to be a conscious effort to do that?

Mr. SEIFERT. So the statute directs us to fund to the extent practicable at least one in every State, and that is a minimum from the statute and we intend to comply with that to the greatest extent possible. I would caution to say that although $7.2 billion sounds like a lot of money, when you divide it by 50 States, six territories and the District of Columbia, it works out to about $150 million apiece, and when you start looking at construction projects, middle mile facilities, you can burn through a lot of money very quickly. So I think our first desire and what we are hearing from public comment is to come up with standards that end up with proposals that stretch the dollars as far as possible, if they are using other Recovery Act funds, like if you are digging a road with some Department of Transportation funds and you can say we are going to lay the fiber at the same time so we have stretched the dollars that much further, but our goal is to make sure that we have sustainable projects so that when the economy does recover, people can go to that community and say this is how it needs to be done in the future.

Mr. SPACE. The constraints of time prohibit me from getting into any more details. I would, however, look forward to having a meeting with you some time in the near future, either in your office or mine, if that would be acceptable.

Mr. SEIFERT. It would be my pleasure.

Mr. SPACE. Thank you.

Mr. WEINER. I recommend going to his office, Mr. Seifert.

Mr. Stupak, you are recognized for 5 minutes.

Mr. STUPAK. Thank you, Mr. Chairman.

Mr. Villano, let me just—a couple things. You know, I keep hearing that the RUS program only funds the ILECs. Incumbent carriers don't really help out the others. They don't fund any wireless applications or wireless companies. And just looking at it and having been on the committee for a long time, what happens in my neck of the woods, that is probably true. The incumbents don't want to come to my neck of the woods because there is not enough people up there, and the few places they will go might be the affluent city or two in my district but after that, they won't go anywhere else. So I am really concerned. I know I have brought up repeatedly how before the changes were made in the RUS program in 2008, how some of these rather affluent communities got funded but we can't get funding up in the more rural, sparsely populated areas. So I just want to make sure that—all right. Let me ask you this. Does RUS anticipate issuing regulations to implement the statutory changes in the 2008 Farm Bill be part of the final rule issued with NTIA?

Mr. VILLANO. The 2008 Farm Bill regulations are in final clearance at the current time and we intend upon publishing an interim final rule within the next 60 to 90 days. The funding that we received under the Recovery Act basically exempted us from the 2008 Farm Bill so it allows us to set up an entirely separate program. So that program will be doing NOFAs consistent with NTIA. We plan to do three NOFAs.

Mr. STUPAK. So wireless will be welcome to apply and other than incumbents will be welcome to apply and receive funding?

Mr. VILLANO. Right. Wireless has always been welcome. We are technology-neutral. We do wireless, we do broadband over power lines.

Mr. STUPAK. That is what it says but in the application that really hasn't been the way it has been. At least that is not my experience. Let me ask you this. RUS already has hundreds of millions of dollars available for broadband loans.

Mr. VILLANO. Correct.

Mr. STUPAK. Shouldn't the emphasis of the stimulus dollars be on grants in the same vein as NTIA then?

Mr. VILLANO. We have $2.5 billion of flexible budget authority that we are envisioning being able to do loans, grants and loan-grant combinations.

Mr. STUPAK. Right, but I am talking before the stimulus. We had all these pendings here before the stimulus was even passed. You had a lot of applicants there. Are they going to go with this new, more discretionary as in the economic recovery package or are they going to follow RUS?

Mr. VILLANO. Under our existing broadband program, we have less than five applications pending. They are all waiting for the regulations for the 2008 Farm Bill.

Mr. STUPAK. So they would go under the 2008 one even though they were pending prior to?

Mr. VILLANO. Anybody that applied before the 2008 Farm Bill was enacted would be under the 2002 Farm Bill. We have two pending applications and both of those will be—a decision will be made on those shortly. We have been waiting for additional infor-

mation from the applicants but there are only two carry-over applications from the 2002 Farm Bill and there are four applications under the 2008 Farm Bill. So not a heavy demand for the existing programs until the rules come out.

Mr. STUPAK. Okay. A lot has been said about mapping. Mr. Mefford, let me ask you these questions. You receive information from the broadband providers to do your mapping, correct?

Mr. MEFFORD. Yes, sir, that is correct.

Mr. STUPAK. Okay. The government needs to add on broadband to inform its policy, to make up its policy decisions. I would note that it can also use data to target resources, and the more granular the data, the better the targeting. With that in mind, let me ask you this question. There are reports that the State cable and telephone association groups in North Carolina hired your company and your company has since tried to hinder North Carolina State agency ENC from doing this broadband mapping, which it had been doing since 2001, because your company refused to provide them the information they need. Also, I have heard that before it would consent to providing E North Carolina with the information, AT&T insisted that the State agency enter into a non-disclosure agreement. So can you explain to me your organization's actions and how hindering the flow of information to State agencies is consistent with your testimony here today?

Mr. MEFFORD. Yes, sir. I am happy to address that. With great respect, let me just say that the assessment of the North Carolina situation is not correct. We are actually partnering with ENC as the existing State entity to make sure that the information that we are now gathering from providers is going to be useful for their efforts to carry out much of the similar programs that we have discussed today.

Mr. STUPAK. But if your providers are insisting on a non-disclosure, how can you provide the information then?

Mr. MEFFORD. It is a great question and one that is broadly misunderstood. We actually in each of our——

Mr. STUPAK. Either you provide it or you don't.

Mr. MEFFORD. Well, no, there are different aspects of the data that remain protected and so for instance the latitude-longitude coordinates of where hardware exists is not information that we will provide, you know, as a database to anybody who wants to access it, but what we do is, we use those coordinates to determine where service is available from that hardware and that is how we create a footprint, a visual representation of where service is available. So that information, Congressman Stupak, is available on each of the State websites and so consumers and businesses can go there and validate it. We have ways for them to feed back on that to tell us if there are places where they see it as inaccurate and incorrect and we make those adjustments each time we receive that feedback.

Mr. STUPAK. Well, if that is available, why would people hire you then?

Mr. MEFFORD. No, we actually make it available. So we gather—the maps over to my right are from Minnesota and there is, you know, 104 broadband providers represented on that map and so we gather that data. It is not available in a single place otherwise

until we gather it. And so once we gather it and we protect that very basic fundamental competitive data, we then again make it available in a visual representation of——

Mr. STUPAK. But you brought up Minnesota. Could the committee or the State of Minnesota then take a look at the raw data to determine whether discrepancies arise? Will you give them the raw data?

Mr. MEFFORD. We have those non-disclosure agreements in place so——

Mr. STUPAK. So see, once again, you are blocking the availability. How about the committee? Will you make it available to the committee for Minnesota?

Mr. MEFFORD. Now, what we can do, yes, sir, is make available this raw data that represents these footprints so we are absolutely willing to demonstrate the validity of that by having the committee look closely at that and welcome that opportunity.

Mr. STUPAK. Well, if you are willing to provide it to the committee, why aren't you willing to provide it to the State of Minnesota then?

Mr. MEFFORD. They actually do have it. I mean, you could log on to the Connect Minnesota website, ConnectMN.org, and you can see the data that is there and you don't have to be the State of Minnesota. I mean, you can be a consumer or company or anybody and you can do a household level search.

Mr. STUPAK. So then your testimony today, you don't mind providing that information to Minnesota?

Mr. MEFFORD. We are providing it already, Congressman.

Mr. STUPAK. So you are going to provide it to Minnesota then, yes or no?

Mr. MEFFORD. It is on the Internet at ConnectMN——

Mr. STUPAK. I am not asking that. I am asking if you will provide it to Minnesota, yes or no?

Mr. MEFFORD. We already have. I mean, we did—as soon as we published the first map for Minnesota, the State was the first to get a copy of it.

Mr. STUPAK. Okay. They are telling us you are not giving it to them.

Mr. MEFFORD. I mean, I would encourage the committee—I would be happy to provide the contact information of our State, you know, contract owner and the people we have liaised with there to——

Mr. STUPAK. So are you providing the map or just the raw data to them?

Mr. MEFFORD. We are providing the map that includes the data that shows the footprints of where broadband is actually available, and again, Congressman, you can search—I mean, consumers can go and search down to a household level to see what data is available for a specific household level.

Mr. STUPAK. Thank you.

Mr. WEINER. Thank you, Mr. Mefford. I think Mr. Stupak raised a good point. I think this information that is gathered should be entirely in the public domain, A, as a check, but B, for instance, there is so much federal funding going into the collection of the data.

Mr. SHIMKUS. Mr. Chairman?

Mr. WEINER. The gentleman from Illinois.

Mr. SHIMKUS. Just to ask unanimous consent to have the letter written by the ranking member of the full committee, Joe Barton, and Cliff Stearns of the subcommittee be submitted for the record to the agencies along with their responses.

Mr. WEINER. Without objection.

The gentleman from North Carolina, Mr. Butterfield, you are recognized for 5 minutes.

Mr. BUTTERFIELD. Thank you very much, Mr. Chairman. I wish our other chairman was here because I wanted to publicly thank him for his work on this subcommittee. He promised us that he would have a robust hearing today and this is obviously good work. The title of the hearing today is the oversight of the Recovery Act. We should have another word in there. I think we need to maximize the Recovery Act. The dollars are very limited, even though the public thinks that it is a lot of money, and it is, but we need to take what we have and get the most for our investment.

Let me take off on where Mr. Stupak was a minute ago, and I think this is an appropriate area that we need to explore as a subcommittee. I don't know very much about Connect Nation but from what I have been told, it is a very credible organization and you are doing good work across the country and I want to applaud you for what you are doing, but I am also concerned about some of the issues that have arisen in North Carolina, my State, and so I want you, please, if you could to be a little bit more specific and tell us more about your transparency in North Carolina and the reliability of the data that you have collected in North Carolina and specifically who you are interacting with with the ENC.

Mr. MEFFORD. Yes, sir. Thank you for the question, and I am glad to provide the answer. I think there was a challenge in North Carolina to create the broadband map, much as we have talked about today, and I am not privy to all the reasons in the history to why that was the case, but as we have done these types of maps across the country, we have established a history, we have established a track record for being able to do this in a way that is inviting to providers to participate in the process, and the driver for that is, we approach it as a business development opportunity for providers. We want them to be able to use this information and again, this is of more benefit for smaller providers than it is larger providers. It puts smaller providers on equal footing from a market intelligence standpoint with their larger counterparts and so they can use that data to build a business case then to identify unserved areas and to identify household density in those areas and to use our information to help build a business case. So because we have been able to do that time after time after time in different States, we have that trusted relationship, that credibility that says we can get the job done.

Mr. BUTTERFIELD. And broadband mapping is not rocket science.

Mr. MEFFORD. It is not. That is exactly right.

Mr. BUTTERFIELD. It can be done in 6 to 9 months, I think we heard earlier today.

Mr. MEFFORD. That is exactly right, but it does require the trust of those who are voluntarily providing the data, and so that is what

we are able to bring to the mix, and in your home State of North Carolina, that is where we stand with the provider community recognizing that they could bring us into the State and provide the information that the State has been after for so many years, and again, that is done to empower existing efforts, certainly not to hinder ENC. ENC has a great history and a proven track record, and there is no desire for our organization to hinder their work but quite the opposite, to empower it——

Mr. BUTTERFIELD. To partner with them as well?

Mr. MEFFORD. To partner in a way that gives them the information that they have been seeking and allows them to then, you know, come to NTIA and RUS with maps in hand that identify where those areas are.

Mr. BUTTERFIELD. Let me direct my next question to Ms. Turner-Lee. Thank you very much for coming. I thank all of you for your testimony today. I realize it has been a long day for all of you, and I particularly apologize for the disruption. We had to go to the Floor for about an hour and now we are just about to finish up.

Ms. Turner-Lee, as you probably know, I represent the eastern part of North Carolina. It is the fourth poorest district in the country in terms of median family income, and one of my 23 counties is called Green County, and you have some involvement and some experience in Green County and I want to thank you for that. In your written testimony, you made reference to the need to build a digital ecosystem that can support not only the installation of broadband but a culture of use of broadband, and that is very important. I would like you to just touch on the success that you have experienced in Green County and also to address the ability that we have to use the stimulus funds to replicate that model in other similar communities across the country.

Ms. TURNER-LEE. Thank you. We don't mind the wait. I think on behalf of the people here, it is a long time coming to actually talk about this, so thank you for acknowledging the time spent on this.

You know, in Green County, that was a case where I think takes and captures the heart of a lot of the testimony you have heard today. There was a change in industry from tobacco to other opportunities that people were searching for and working hand and hand with stakeholders in the North Carolina area. We really worked on a plan and we were invited to come in and work alongside of those providers to make sure this worked, and what we introduced to them was the power of the Internet at that time, and this was a project that started a few years back. That thought and that idea of looking at the Internet as a way to change an economy led to the successes that we saw in Green County. Not only were former tobacco workers seeing the power of the Internet and seeing the power of economic development opportunities and being retrained on how to use the Internet, they were also using it to build a local economy. There is a story in Green County of signs on lawns of ways that people that could use the Internet to connect resources to one another. We had a section on the beehive, which was a community bartering section. It was the eBay of Green County where people were trading goods among each other. As a result of our efforts there, we have seen young people become less truant. We have seen reductions working hand in hand with the stakeholders

there in teenage pregnancy. In fact, we honored a young person that came out of Green County who looked at his dyslexia not as a hindrance but as a way to use technology to talk to other people about how to solve that. I think the example of Green County demonstrates a few things that we need to capture going forward.

Mr. BUTTERFIELD. You are going to have to wrap it up. The chairman is going to hit the gavel in just a second.

Ms. TURNER-LEE. You know, again, stressing collaboration, transparency, ensuring that the ecosystem becomes institutionalized and it is not a case where we use this funding where we don't look back and make the meter move on various things that we want do around this as it has been stated as a proof of concept but also as a way to move people that have been disconnected and detached.

Mr. BUTTERFIELD. Thank you.

Mr. WEINER. Thank you, Mr. Butterfield. I yield myself a couple minutes here. Can I just ask, Mr. Large, do you have coaxial cable television in your area?

Mr. LARGE. We have Comcast in the city of Stuart, which is the county seat, and then Citizens Internet provides to the one household that we spoke of, but other than that——

Mr. WEINER. No, but I mean, do you have cable television, traditional cable television in your area?

Mr. LARGE. In the town of Stuart only.

Mr. WEINER. And do you have landline telephones?

Mr. LARGE. Yes.

Mr. WEINER. Mr. Seifert, as a philosophical matter, probably the quickest way to get Mr. Large's jurisdiction Internet access, broadband, is just to do DSL or have the cable company there provide the service, right? It is probably quicker than having a wireless outfit come in and wire the community.

Mr. SEIFERT. I am not so sure that is the case because if that were the case and it could be done, I think Mr. Large would say that it already would have been done.

Mr. WEINER. Well, there is the economic imperative. Perhaps one of the questions is whether what we are doing here is priming the pump for business to do what they should have been in the business of doing anyway. But from just pure expedience, if our object is to get as many people wired as quickly as possible, isn't that probably the technologically fastest way to get it done?

Mr. SEIFERT. Again, I don't want to make a determination there because I don't know if he is in a mountainous region where point-to-point access with fiber attached to the bottom of the towers would be a way to get it quicker and cheaper, and quicker I think has to encompass some sort of cost aspect. If we had unlimited funds, you know, there are all sorts of quick ways we could do it, but I don't know enough about the topography and the folks and the sorts of things they are looking for.

Mr. WEINER. But there is nothing that would disqualify them—I mean, I know the rules haven't been made but nothing that would disqualify the local cable company or the local phone company saying you know what, we are going to amp up our traditional ISDN line and make it a DSL line in this community. There

is nothing that prevents them from getting funds under this Act or bidding to be the service provider in that area?

Mr. SEIFERT. So the statute says that there is a public interest test for for-profit companies to participate so that is one of the things that we in consultation with the FCC have to determine and we have received comment on that, but given that they have met that public interest test, then they can apply and present proposals for that.

Mr. WEINER. Got you. So one of the things that you are not—we were just having a conversation while the question was going on. You are not trying to create necessarily—one of your imperatives is not to create jobs in the wiring of communities?

Mr. SEIFERT. I think it is a benefit. If you think of Department of Transportation money building roads, one of the initial benefits is the folks actually building the roads but there are greater benefits that come from down the road from the investment. It is not just the building of the wire.

Mr. WEINER. Right. It is the economic faucet that gets turned on from that.

Mr. SEIFERT. Correct.

Mr. SHIMKUS. Mr. Chairman, can I just follow up on that?

Mr. WEINER. Certainly.

Mr. SHIMKUS. What about this debate on the wiring, the fiber wiring that is called the middle mile, which is, maybe there is access as you are talking about it but it is really the fiber connection from—I just got briefed today by folks who Newton, Illinois, is an unserved area but what they would like this money to go to is the fiber to connect to the fiber. Then they have access. Is there a discussion in that way?

Mr. SEIFERT. I can tell you it is one of the Administration's priorities in this program, it has been expressed, that middle mile provides the opportunity for unconnected communities or communities that are not as connected as much as they would like to be to get to the Internet, and the more folks you can get involved in that, community centers, hospitals, public safety, they help fund the viability and the sustainability. We talked about sustainability, the sustainability of that project.

Mr. SHIMKUS. Mr. Chairman, can Commissioner Chong just follow up on that?

Mr. WEINER. Certainly.

Ms. CHONG. Thank you. I was just chomping at the bit.

Mr. SHIMKUS. I could tell.

Ms. CHONG. Well, the middle mile is critical because for the unserved areas, the main reason the carriers tell me they are not there already is they can't get an Internet point of presence close enough, so that is the critical piece, and the point is, if you put the fiber in going out to the unserved area, it is really expensive, and so in our program we did allow the cost to be reimbursed but we had them proportion it between how much goes to serving the unserved and underserved area versus currently served people.

Now, the other thing I wanted to add is, we are leveraging the California Telehealth Network money, which we got through a $22 million grant from the FCC pilot program, and that was critical because that will help push this middle mile farther out into the

rural areas where these rural health care networks are that we are connecting and that will make a huge difference. So the last thing to add is, we are also looking at the health IT money, the electronic records, and we will parlay some of that into the project. So we are trying to grab every possible pot to make this happen but fiber is really critical and it should be paid for.

Mr. WEINER. Let me just conclude with this thought, and I think it represents the aspirations of both sides of the aisle. You know, we had an experience after September 11, Homeland Security money, we all knew we wanted to improve safety. We dumped a lot of money out there and we found out years later it wasn't terribly well spent, it wasn't terribly well thought through. You know, the political ideal that we all have of wanting to get the service, the economic idea, if we don't get this right, the political will is going to evaporate pretty quickly on doing things like this in the future so there is an enormous amount of burden on you, and we have talked a lot about the stimulus, being a necessity to do things quickly and we have already had a remarkable number of hearings in a brief period of time. The rulemaking is moving along with alacrity. But it is very, very important, I think, that at the end of this process people say you know what, not only do we get service to people that didn't have it, it made economic sense, it worked, people were seeing the benefits, because if we are going to push this envelope in next generations of Congress trying to figure out how you expand it even more, this is going to be the laboratory that a lot of people are going to look to for arguments pro and con.

So I thank you very much all of you for your testimony. I thank you for being so patient while we had the series of votes. I ask unanimous consent to include for the record a memo from the Minority Media and Telecommunications Council. Without objection.

Mr. WEINER. I would also ask that members have to revise and extend their mark. We will keep the record open. I thank you all. This committee hearing is closed.

[Whereupon, at 1:25 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

Opening Statement of Rep. Henry A. Waxman
Chairman, Committee on Energy and Commerce
National Broadband Plan: Deploying Quality Broadband Services
Subcommittee on Communications, Technology, and the Internet
April 21, 2010

Thank you Mr. Chairman for holding this hearing on deploying broadband service to unserved and underserved communities across the Nation. Because broadband is critical to future economic growth and job creation, every American must have the opportunity to access high-quality, high-speed broadband from a variety of providers.

The Plan provides a blueprint on how the public sector, from federal to local governments can ensure their policies do not hinder, but promote deployment to both unserved and underserved communities. It also speaks to ways in which the private sector can act. By utilizing all the levers the public and private sectors have at their disposal, we will achieve the goal of the National Broadband Plan – 99 percent access to high-speed broadband within ten years.

While there are a number of proposals in the Plan, and I commend the FCC staff for their thorough review, I would like to take a moment to highlight a couple that I find to be very promising. For example, the Plan recognizes that substantial cost savings can occur from better planning and coordination between government resources. To that end, the Plan is supportive of efforts like those in Congresswoman Eshoo's legislation that would require States on certain federally-funded highway projects to include a broadband conduit at the time of construction. The Plan, however, goes one step further and recommends expansion of this cost-reducing concept to all federally-funded rights-of-way projects. Greater access to rights-of-ways at reduced costs can help advance the deployment of more advanced facilities not only in urban areas, but also deeper into rural areas.

The Plan also highlights specifics ways in which to reform the universal service fund so that the $8.7 billion currently spent under that program can do for broadband service what it did for telephone service in the last century – ensuring access for everyone. I am encouraged that the FCC is initiating the first in

a number of proceedings on Universal Service reform at its Open Meeting that is occurring this morning.

The Plan is ambitious and a well thought out call to action. I would like to commend the FCC for putting forward a timeline of its implementation schedule. This is the first time the FCC has so clearly outlined its work and I think that it is a model of good government.

I am also pleased that the FCC is taking action on the Plan. As I just alluded to, the first of the proceedings needed to achieve the Plan's goals are being considered by the Commission as we are holding this hearing. Data roaming, in addition to the USF item, are on the Commission's agenda. Both of these areas offer great opportunities for promoting access to broadband.

Thank you again Mr. Chairman for holding this hearing and I look forward to hearing from our witnesses.

MOVING THE NEEDLE ON BROADBAND:

STIMULUS STRATEGIES TO SPUR ADOPTION AND EXTEND ACCESS ACROSS AMERICA

MARCH 17, 2009

National Cable &
Telecommunications Association
25 Massachusetts Avenue, NW
Suite 100
Washington, DC 20001-1431

MOVING THE NEEDLE ON BROADBAND:

STIMULUS STRATEGIES TO SPUR ADOPTION AND EXTEND ACCESS ACROSS AMERICA

EXECUTIVE SUMMARY

It is widely understood that broadband is a crucial driver of economic recovery and global competitiveness. The broadband funding programs established by Congress in the American Recovery and Reinvestment Act (ARRA) can help foster these goals. In particular, these programs can help bring broadband to the small percentage of the nation's homes with no physical access to broadband and overcome other barriers to adoption – such as affordability, the lack of a computer or other equipment needed to connect to the Internet, and low levels of basic "digital literacy."

In order to best address these issues and to ensure that broadband fulfills its full promise as an engine of job creation, a facilitator of educational and healthcare opportunities, and a means of shrinking the distances between isolated communities, the ARRA's broadband grant and loan programs should be implemented with the following basic principles:

- Funds should be used to increase broadband adoption and use;
- Awards should be competitively and technologically neutral so as not to create disincentives to private investment that necessarily will continue to take the lead in broadband deployment
- Value-producing projects that can be implemented quickly should receive the highest priority; and,
- Implementation should be transparent and coordinated with other agencies providing similar aid.

In deploying the stimulus funds, care must also be taken so that the program will do no harm to the fabric of the broadband industry, which on its own has already invested hundreds of billions of dollars on broadband networks and services – far in excess of the substantial broadband subsidy programs in the stimulus package.

With these principles in mind, the foremost priorities in awarding competitive grants, in descending order, should be:

1. Extending broadband facilities to *unserved areas*.

2. Supporting programs that enable *underserved populations* to acquire and to make effective use of broadband service where it is already available.

3. If funds remain, extending broadband facilities to *underserved areas* defined in terms of below-standard speed and other qualitative measures relative to today's current-generation broadband services.

Unserved Areas: Approximately 9-10 million households, typically in rural communities, lack access to broadband services. Devoting grants to extending broadband coverage to these unserved areas should be a high priority.

Underserved Populations: At the same time, an additional 35 million households have access to broadband, but do not currently use this service. Many of these households are relatively low income, and only 30 percent have more than a high school education. Demand-side stimulus investment programs that promote the use of broadband among these underserved populations therefore also serve an important purpose.

Underserved Areas: Finally, there are households in underserved areas – areas in which broadband service is available, but not at speeds generally available throughout the rest of the country. In these areas, the government should proceed with caution. The need for subsidy in these underserved areas is not as great as in unserved areas or for underserved *populations*, and subsidizing infrastructure in these areas runs the risk of subverting the commercial deployment already taking place. Subsidies to these underserved areas should therefore be carefully structured so as not to favor one technology over another, one provider over another, the public sector over the private sector, or otherwise upset marketplace dynamics.

Under these conditions, the broadband grant programs promise great short and long-term benefits to the American economy. The $7 billion program has the potential to do a tremendous amount of good, and the cable industry supports the federal government's efforts to use these funds to expand broadband access and spur adoption.

INTRODUCTION

Broadband technology, as Congress, the FCC and others have recognized, is a key driver of economic growth. Grants to promote the use of broadband thus effectively stimulate both short-term and longer-term economic growth.

The cable industry is at the forefront of a vibrant marketplace that has been responsible for the explosive growth in both broadband deployment and broadband use in the country. In sharp contrast to the situation only a decade ago, today more than 92 percent of American households have access to wired broadband services,[1] and the cable industry alone has spent tens of billions of dollars upgrading and expanding its networks to provide this broadband access.[2] Even in challenging times for the nation's economy, the cable industry continues to make very significant capital investments in order to increase broadband deployment and improve current generation broadband service -- improving upstream and downstream speeds, as well as improving reliability and ease of use.

As the largest provider of retail broadband service in the U.S., the cable industry has a significant interest in the success of grant programs designed to promote broadband use. All broadband customers and providers benefit indirectly from an effective grant program, since the more households and businesses that connect to broadband, the more valuable it is to all broadband consumers.

Cable's interest -- and sound public policy -- are implicated by the nature of the grant programs in a more profound way as well. The $7 billion program has the potential to do a

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[1] SNL Kagan data (2008).

[2] NCTA figures based upon SNL Kagan estimates, *available at* http://www.ncta.com/Stats/InfrastructureExpense.aspx. Between 1996 and 2008 cable operators have invested more than $145 billion in capital to enhance their hybrid fiber-coaxial networks and other infrastructure, including approximately $14.6 billion in 2008. A similar level of capital expenditures is estimated for 2009.

tremendous amount of good, and we support the federal government's efforts to use these funds to expand broadband access and spur adoption. It is also true, however, that these funds must be viewed in the context of a vastly larger capital requirement if we are to achieve full broadband construction and maintenance for the country. The cable industry alone spent twice that $7 billion amount in just the past year to upgrade its facilities. Most of the investment necessary to provide and then to maintain broadband service has and will come from the private sector. As a result, a critical consideration in devising a sound program is that the program not harm the investment fabric of the broadband industry. A successful program must supplement, and not distort, the growing private, competitive market for broadband services. Stated simply, the grant program must not only weigh the needs for stimulus over the next 24 months, it must also seriously consider the effect that grants will have on the future of broadband services in this nation.

We therefore propose that the Commerce and Agriculture Department programs be designed to implement the following four principles, each of which is equally important:

First, the grants should be used to increase broadband adoption and use;

Second, the grants should be competitively and technologically neutral so as not to affect the private marketplace that must continue to take the lead in broadband deployment;

Third, the grants should further the statutory goal of economic stimulus, that is, they should fund value-producing projects that can be implemented quickly and create new jobs; and

Fourth, it is essential, as well as statutorily mandated, that the grant-making programs be transparent, accountable, and coordinated with other agencies providing similar aid.

With these principles in mind, the priorities in awarding competitive grants, in descending order, should be:

1. Extending broadband facilities to *unserved areas*.

2. Supporting programs that enable *underserved populations* to acquire and to make effective use of broadband service where it is already available.

3. If funds remain, extending broadband facilities to *underserved areas* defined in terms of below-standard speed and other qualitative measures relative to today's current generation broadband services.

Given the limited amounts of funds available relative to need, these priorities should be strictly observed.

PRINCIPAL PRIORITIES IN AWARDING COMPETITIVE GRANTS

A. Extending broadband facilities to unserved areas.

Extending the physical availability of broadband where it currently does not exist should be the government's highest priority in terms of distributing broadband grants for infrastructure construction.[3] While the number of consumers with access to broadband has grown steadily over the past five years,[4] some geographic areas still lack the necessary infrastructure to offer broadband services. In particular, without government assistance, "[t]he economic costs and technological limitations blocking the expansion of broadband leave many rural communities underserved" and often unserved.[5] Thus, to meet the stimulus plan's goal of extending broadband to unserved areas, agencies should distribute grants so that new infrastructure is constructed in areas where none exists.

Although it is difficult to develop a precise and accurate count, approximately 9-10 million households lack access to broadband services.[6] Of these 9-10 million households, the

[3] In defining geographic areas that represent "unserved areas," agencies should rely on the FCC's definition of broadband which would denote areas where there is not at least one provider providing Internet access service of at least 200 kbps in one direction.
[4] John B. Horrigan, Home Broadband Adoption 2008 at 1 (Pew) (July 2008) ("Horrigan").
[5] Jon M. Peha, Bringing Broadband to Unserved Communities at 11, The Hamilton Project (The Brookings Institution) (July 2008) ("Peha").
[6] *Id.*

bulk is in rural communities.[7] All told, "perhaps a third of rural households" lack broadband access.[8] A study recently published under the auspices of the Columbia University Institute for Tele-Information, using data derived from the FCC and the Census Bureau, reflects these realities.

States Identified for "Unserved and Underserved" Targeting[9]

State	Percent of Residential unserved <93%	Number of Lines	Households	Household Penetration	Population	Population Penetration
Alabama	92%	808,291	2,137,018	38 %	4,627,851	17 %
Arkansas	75%	532,171	1,267,429	41 %	2,.834,797	19 %
Georgia	92%	2,298,983	3,961,474	58 %	9,544,750	24 %
Indiana	92%	1,208,274	2,778,394	43 %	6,345,289	19 %
Iowa	90%	581,283	1,329,596	44 %	2,988,046	19 %
Kansas	91%	680,270	1,219,439	56 %	2,775,997	25 %
Kentucky	91%	843,641	1,906,096	44 %	4,241,474	20 %
Maine	93%	288,491	696,611	41 %	1,317,207	22 %
Mississippi	91%	384,772	1,254,908	31 %	2,918,785	13 %
Montana	88%	185,251	435,533	43 %	957,861	19 %
Nebraska	93%	406,674	780,804	52 %	1,774,571	23 %
New Mexico	82%	343,588	862,067	40 %	1,969,915	17 %
North Dakota	88%	137,207	310,548	44 %	639,715	21 %
Oklahoma	91%	815,785	1,623,010	50 %	3,617,316	23 %
Pennsylvania	93%	2,852,177	5,477,864	52 %	12,432,792	23 %
South Carolina	92%	844,013	2,021,947	42 %	4,407,709	19 %
South Dakota	80%	160,821	357,240	45 %	796,214	20 %
West Virginia	84%	297,852	882,685	34 %	1,812,035	16 %
TOTAL		13,665,484	29,322,663	47 %	66,002,324	21 %

Source: FCC table 14 of HSPD1207; US Census Bureau

As this chart reflects in its first two columns, there are 18 states in which the percentage of homes with access to broadband service from at least one provider is below 94 percent.[10] More pertinent still, as reflected in the fifth column titled "Household Penetration," on average

[7] *Id.* at 11-12.
[8] *Id.* at 5, 9 fig.3.
[9] Raul Katz and Stephan Suter, Estimating the Economic Impact of the Broadband Stimulus Plan (Feb. 2009), at 18.
[10] In addition to the states noted, additional states such as Vermont, Alaska and Nevada also contain many households either without access to even one broadband provider or without robust penetration rates, states which are not represented in the table because of limitations in the underlying FCC data.

well under 50 percent of the households in these states actually subscribe to a broadband service, less than the national average of 61 percent.[11]

The reason for this disparity between availability and adoption in these states is not that rural communities are less interested in the Internet. To the contrary, the fraction of rural households subscribing to *any* Internet service is just below the national average. The difference is that rural users rely far more on dial-up -- often all that is readily available (although satellite broadband is also fairly widely marketed) -- and far less on broadband to access the Internet.[12]

The stimulus plan calls for grants to encourage investments that would not otherwise be made in a particular geographic area, and for grants where they will be "efficient and expeditious."[13] Among unserved geographic areas, subsidies therefore should be targeted first to areas in which service would not otherwise be provided and that could support the ongoing costs of providing broadband service if government funded the costs of the underlying infrastructure. Underwriting the capital cost of facilities in areas without sufficient demand creates a significant risk that government funds may be diverted to the construction of facilities that ultimately must be abandoned because providers are unable to recoup the operating costs of providing service.

Unfortunately, it is challenging to identify with precision which areas are "unserved." The stimulus bill's requirement for extensive mapping of broadband availability will ultimately provide a better estimate of access, but unfortunately most of that mapping will be incomplete while grants are still being processed.[14] In the meantime, however, grant allocations should take into account the actual number of households that a given broadband plan will affect, factoring in

[11] NCTA estimate based on SNL Kagan Data (2008).
[12] Peha, at 9-10.
[13] The American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 6001(e)(3), 123 Stat. 115, 512-13 (2009).
[14] The cable industry strongly supports the cooperative mapping exercise set out in the law. These mapping projects should be given a priority: the more quickly accurate mapping information is available, the more productively the remainder of the grant funds can be distributed.

the limitations of the data.[15] The obligation should fall to all applicants for grants to demonstrate the number of households that currently lack any access to broadband services, and the specific number of households that would have access to broadband for the first time as the result of awarding the grant.

Moreover, and as we describe in more detail below,[16] for grants to be put to use expeditiously, they should not be subject to conditions that call for technology that is beyond current generation of broadband technology. In particular, practically deliverable broadband capacity has consistently increased over the years, and will continue to increase going forward. It would be inconsistent with the goal of rapid stimulus, however, to condition grants on a level of performance that is not generally available today, which, in the case of broadband speed, is approximately a maximum of 3-6 Mbps downstream and 500-1000 kbps upstream depending on the technology involved. As the House-Senate conferees on the ARRA recognized, establishing too high a bar for eligibility could have the perverse effect of deterring investment, depriving those areas of jobs in building out broadband and perpetuating the lack of broadband service rather than remedying it.[17]

B. Supporting programs that enable underserved populations to acquire and to make effective use of broadband service where it is available.

Merely providing broadband access does not necessarily mean that customers will subscribe to it. The larger problem is that many consumers fail to subscribe to broadband service even when it is available. For too many of the 92 percent of households in the United States[18] that have access to broadband services, and for many of the remaining households that could receive access through effective grant programs, there is a demand-side problem. Specifically,

[15] In less populous states, assessments of relative populations served may also be appropriate.
[16] *See infra* pp. 12-13.
[17] H. Conf. Rep. 111-16 (2009) at 775.

only about 61 percent of U.S. households subscribe to broadband service,[19] and 70 percent of households headed by someone under 65 years of age receive broadband service.[20] An effective grant program therefore should address the reasons why particular populations choose not to subscribe even when broadband is available.

Two key obstacles -- lack of interest and lack of resources -- greatly affect whether Americans subscribe to broadband. It should be no surprise that Congress has therefore directed that a significant amount of resources be directed to promoting broadband awareness and adoption by these underserved populations. Indeed, this is the *principal* area in which Congress has expressly mandated that funds be spent, underscoring its priority. The plain legislative intent is that the mandated amount is the bare minimum that should be directed to demand-side stimulus, with no indication that Congress intended to impose any upper limit on such expenditures.

These obstacles are acutely present in low-income and low-education households.[21] One consequence is that the rural poor suffer a double whammy -- not only are many rural areas unserved, but low-income households underutilize broadband even when it is available. As the following chart illustrates, a sensible grant program would target these populations and the barriers that prevent them from receiving the benefits of broadband:

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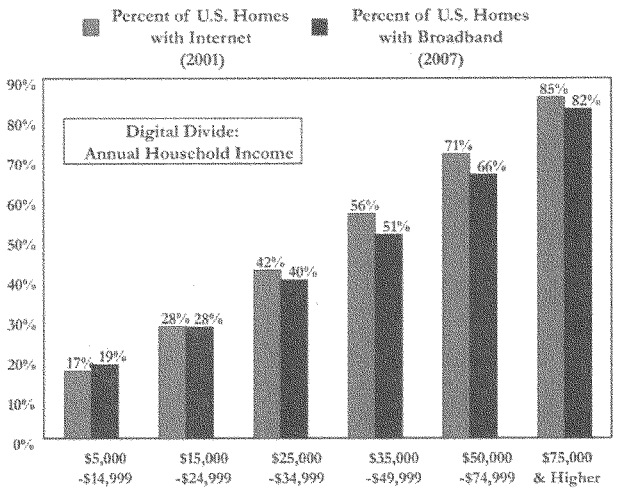
[18] *See supra* n. 1.
[19] *See supra* n. 11.
[20] NCTA estimate based on: U.S. Census data, American Housing Survey for the United States (2007); National Information and Telecommunications Administration, Households using the Internet In and Outside the Home, By Selected Characteristics: Total, Urban, Rural, Principal City (2007) (http://www.ntia.doc.gov/reports/2008/Table_HouseholdInternet2007.pdf)..
[21] Peha, at 5 (low broadband penetration in households with total income under $30,000).

The Economic Broadband Divide (2001 & 2007)[22]



Source: U.S. Census Bureau, 2007.

To address demand, it is of course first necessary to understand the reasons for the lack of demand. Researchers studying broadband access have concluded that "lack of interest" in broadband is the main reason that people do not purchase the service.[23] Indeed, about one-quarter of adult Americans do not use the Internet at all; these individuals are disproportionately lower-income and older than average Internet users.[24]

This lack of use appears to stem from lack of familiarity. Most non-broadband households view broadband as being either irrelevant or difficult to use.[25] Nearly half of the population that does not subscribe to broadband says it does not need such a connection.[26] A significant portion of those not adopting broadband holds generally less positive attitudes toward

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[22] Free Press, Down Payment On Our Digital Future, Stimulus Policies for the 21st Century Economy at 24 (Dec. 2008).
[23] John B. Horrigan, Obama's Online Opportunities II: If You Build It, Will They Log On? at 2 (Pew) (2009)
[24] Horrigan, at iii, 12.
[25] *Id.*

technology than do their connected counterparts. Almost half of the dial-up users stated that modern electronic devices interfere with personal productivity, whereas almost 70 percent of broadband users say that these devices aid productivity.[27]

Lack of resources is also an issue, though it is not the only issue. Many dial-up users say they cannot afford broadband services; 35 percent say the price of broadband would have to fall for them to subscribe.[28] But *perceived* price seems to play almost as important a role as actual price differential; the reality is that broadband is 4 percent cheaper today and the price of dial-up is roughly 9 percent higher than those services were in 2005.[29] These facts, in connection with survey evidence, have led researchers to conclude that the decision to not obtain broadband service likely is due to perceived or relative value, not the inability to pay. And to be clear, it is not due to the unavailability of broadband access, because more than 92 percent of Americans currently have access to broadband services.

To address these issues, grant funds should be targeted to programs that educate targeted consumers on the benefits of broadband service. In addition, grants should be used to provide targeted subsidies to make broadband services more affordable, and to take other steps on a pilot project basis similar to those adopted in "Lifeline," "Link-Up" and related programs that have historically helped to subsidize voice services, in order to support the demand for broadband service. By way of example, programs that support an increase in computer ownership and training are very promising and should be supported extensively. The law calls for such grants,[30] and they have a double benefit: they ensure the prompt expenditure of grant dollars in ways that

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[26] Consumer Insights to America's Broadband Challenge at 2, Connected Nation (Oct. 13, 2008).
[27] Horrigan, at 13-14.
[28] *Id.* at ii, 11.
[29] *Id.* at 7, 8.
[30] *See* The American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 6001(b)(3), 123 Stat. 115, 512-13 (2009).

promote jobs. For both of these reasons, such grants will be one of the most effective and appropriate ways to stimulate broadband adoption and use.

C. Extending broadband facilities to underserved areas defined in terms of below-standard speed and other qualitative measures relative to current generation service.

Finally, it is no doubt the case that some broadband customers are *underserved* – that is, they live in areas where there is at least one provider offering broadband, but not at robust speeds. In these areas, providers may offer broadband service at transmission speeds that exceed the FCC's definition, but fall short of the speeds typically experienced by consumers with current generation broadband service (generally, a maximum of 3-6 Mbps downstream and 500-1000 kbps upstream). Promoting more robust broadband services in these underserved *areas* is the third element of a sound broadband grant program. The problems associated with underserved areas, however, are by their nature not as substantial as those faced by potential customers who lack broadband access altogether, or by populations who cannot afford or do not understand the benefits of broadband. Promoting additional services where broadband is already available may increase broadband penetration marginally, but the impact on penetration is likely to be significantly less than efforts to extend broadband access where none is available,[31] or to promote broadband use among populations with low broadband adoption rates.

At the same time, grants to address any problems associated with underserved areas -- where, by definition, providers have invested risk capital to deploy broadband -- present the greatest danger of undermining the existing broadband investment environment. The cable, telephone, wireless, and satellite industries have and continue to pursue innovation that has brought access to the present point. Any subsidies to areas in which broadband service is

[31] Of course, projects to construct middle mile facilities may fall in this category where such deployment can be demonstrated to enable the expansion of local broadband networks into unserved areas.

presently available should be designed to avoid disincentives that would threaten diminution of the entire broadband ecosystem.

Particularly, subsidies should not have the unintended consequence of favoring one technology over another, one provider over another, public sector over private sector, or otherwise upsetting marketplace dynamics. To avoid this possibility, the grant system should apply the principles of competitive neutrality to the broadband sphere. A competitively neutral approach would ensure that entities vying for grants develop the most efficient means of supplying broadband to the widest swath of the population, and at the same time avoid favoring a particular technology. Such an approach would recognize that favoring a given technology runs the risk of distorting the competitive marketplace and limiting innovation.

The risks of marketplace distortion are not hypothetical. Currently, the marketplace offers consumers broadband through a mix of technologies -- DSL- and fiber-based technologies offered by phone companies, hybrid fiber-coax services offered by cable providers, and wireless services offered by both terrestrial wireless carriers and satellite providers. Each technology has its strengths and weaknesses, and companies continue to upgrade their services to compete with each other for customers.

These varying wired and wireless broadband technologies are evolving rapidly, and it is too early to tell which technology, or sets of technologies, will be best suited for which kinds of customers in which geographic or demographic areas. In that context, it is especially important that the grant program adhere to strict competitive and technology neutrality; in neither its purpose nor in its effect, should it favor one set of technologies or one set of providers over another.

Additionally, grants that target certain connection speeds raise a core definitional question: how fast does service have to be to qualify as broadband or to qualify for a subsidy? In fact, a broad range of speeds properly qualify as high-speed or broadband. Prior to 2008, the FCC used the term "high-speed" to describe services that provided data to subscribers in excess of 200 kbps in at least one direction. Other entities defined high-speed Internet using similar data transfer rates in similar terms, with the Organization for Economic Co-operation and Development defining broadband as having download data transfer rates equal to or faster than 256 kbps per second. Today, of course, broadband facilities are capable of much faster speeds.

Certain broadband options, though very fast, will be unaffordable to the vast majority of the populations who currently lack broadband access. Likewise, the investment necessary to create a very fast broadband network may not be economic in certain areas -- the infrastructure costs may be far too high to justify the minor gains in efficiency.[32]

Given the ARRA's deadlines for issuing grants and completing projects, any definition of inadequate speed as a hallmark of an "underserved" area cannot, as a practical matter, ignore the current speed levels. It thus would make no sense to attach speed prerequisites beyond, for example, a maximum information transfer rate of at least 3 Mbps downstream and 768 kbps upstream. Describing higher speeds as essential runs the risk of misallocating funds that should be devoted to higher priority geographic areas and populations.

[32] Economics of Broadband Access for Underserved Consumers and Businesses, Public Technology Institute (May 2007).

CONCLUSION

In light of these issues and to achieve the intent of the stimulus plan, it is critical that agencies focus first on extending broadband facilities to unserved areas and to support programs designed to enable underserved populations to take advantage of broadband services. To the extent funds remain, extending broadband to underserved areas would be appropriate, so long as agencies do not upset the competitive balance.

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ONE HUNDRED ELEVENTH CONGRESS

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March 25, 2009

Ms. Bernadette McGuire-Rivera
Associate Administrator
National Telecommunications
and Information Administration
U.S. Department of Commerce
1401 Constitution Ave., N.W.
Washington, D.C. 20230

Mr. James R. Newby
Acting Administrator
Rural Development
U.S. Department of Agriculture
1400 Independence Avenue, S.W.
Washington, DC 20250-3201

The Honorable Michael J. Copps
Acting Chairman
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Dear Ms. McGuire-Rivera, Mr. Newby, and Chairman Copps:

The recently enacted American Recovery and Reinvestment Act (ARRA) provides $7.2 billion to the National Telecommunications and Information Administration (NTIA) and Rural Utility Service (RUS), in consultation with the Federal Communications Commission (FCC), to expand broadband deployment and use, and for broadband mapping projects. The legislation also directs the FCC to create a national broadband plan.

Broadband technology has the potential to create jobs, fundamentally alter our economy and improve the quality of life for many Americans. While we applaud President Obama's focus on this type of transformational infrastructure, we fear that the haste with which the legislation was drafted and enacted, and the short timeframe the respective agencies are afforded to accomplish their tasks, may prevent the agencies from achieving these worthwhile goals as

effectively as might otherwise have been possible. The very real risk, of course, will be that taxpayer dollars are once again wasted on another ineffective government program.

We hope to minimize the likelihood of that happening. Accordingly, we ask each of you to please provide written answers to the following questions by March 31, since your respective agencies have all been tasked to participate in this collective endeavor:

1. Shouldn't ARRA funds be prioritized for projects in States where broadband mapping has been completed, and allocated based on the information gathered? Nationwide broadband mapping provided for in previous legislation and in the ARRA would have been instrumental in identifying where the broadband funds might have the greatest impact, but may not be complete before the ARRA requires funds to be awarded. Maps have already been completed in a number of States, however, and maps in other States may also be finished before all of the ARRA funding has been spent. By identifying the areas that currently lack broadband service, the agencies will be better equipped to make decisions on how to best spend taxpayer money. The likelihood of waste, fraud, and abuse increases if you act before having the benefit of this information. Prioritizing funding for projects in States where mapping is complete will also help ensure requests are well thought out, and provide a valuable incentive to complete maps in the remaining States as thoroughly and quickly as possible. Moreover, our understanding is that ARRA funding will be allocated in three phases, enabling the agencies to prioritize funds to projects in States with complete broadband maps, while maps in other States are being finished.

2. Shouldn't unserved areas be prioritized over underserved areas? Underserved areas, by definition, already have at least one provider and a market for broadband service. Allocating funds to underserved areas before unserved areas would let some areas get back in line for "seconds" before other areas have had a chance to get "firsts." Allocating funds to underserved areas is also more likely to distort the marketplace, either because companies will wait for government funding rather than go forward with their own investments, or will be forced to compete with a government subsidized competitor. Thus, it may be best to address underserved areas after unserved areas.

3. If funds are allocated to underserved areas, shouldn't they be directed to stimulating demand rather than stimulating supply? Again, by definition, underserved areas already have at least one provider. Broadband supply, therefore, may be less of a concern than broadband demand.

4. Shouldn't the criteria for allocating ARRA funds be technologically and competitively neutral? It is not the role of government to put a finger on the scale or pick winners and losers.

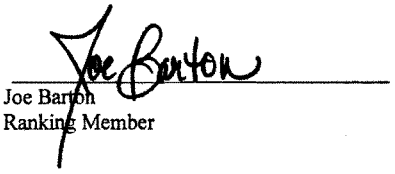
5. Shouldn't the allocation of ARRA funds include criteria based on whether a project will be sustainable without additional government funding? Our understanding is that some potential ARRA applicants view the Universal Service Fund as a potential source of

continued funding for ARRA projects once the ARRA funds have been spent. However, the Universal Service Fund is a bloated and inefficient program that already costs subscribers $7 billion per year.

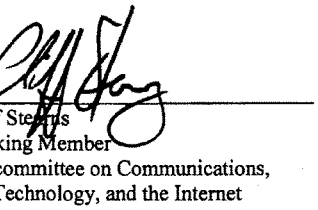
6. In order to fund the most cost-effective projects, shouldn't allocation of ARRA funds be based on competitive criteria, so that projects that have the most impact for the least amount of taxpayer dollars are funded before less efficient projects?

We look forward to your responses. If you have any questions please contact Mr. Neil Fried or Ms. Amy Bender with the Republican Committee staff at 202-225-3641, or Mr. Matt Mandel in Mr. Stearns's office at 202-225-5744.

Sincerely,



Joe Barton
Ranking Member



Cliff Stearns
Ranking Member
Subcommittee on Communications,
Technology, and the Internet

cc: The Honorable Henry A. Waxman, Chairman
The Honorable Rick Boucher, Chairman
Subcommittee on Communications, Technology, and the Internet

Minority Media and Telecommunications Council

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STATEMENT OF THE MINORITY MEDIA AND TELECOMMUNICATIONS COUNCIL ON CONGRESSIONAL OVERSIGHT OF THE BROADBAND SECTION OF THE AMERICAN RECOVERY AND REINVESTMENT ACT[1]

March 31, 2009

The broadband stimulus provisions of the American Recovery and Reinvestment Act are a bold step toward creating opportunities for all Americans to participate as broadband contractors. We hope the Energy and Commerce Subcommittee on Communications, Technology and the Internet will focus on the following issues and questions as it oversees the broadband procurement process.

1. The Purposes of the Grant Program

- Congress should ensure that service to communities with low income, high unemployment, high representation of minorities and high representation of multilingual populations are given top priority for grants.

- Already-wired communities should receive supplemental infrastructure that will deliver the same high speeds as those designed into new rural infrastructure.

2. Organizations and Agencies Providing Outreach

- Funds should be awarded to contractors and subcontractors, as well as Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Native American Serving Institutions (NASIs) and Asian American Serving Institutions (AASIs).

- A National Minority Broadband Training and Technical Council should be established.

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[1] Henry M. Rivera, Chair of MMTC, has recused himself from this matter and did not participate in the formulation or submission of this Statement.

3. Role of the States

- Congress should undertake to prevent state procurement laws, rules, regulations and programs related directly and indirectly to socially and economically disadvantaged businesses (SDBs) from conflicting with federal government policies regarding SDBs.

- The National Telecommunications and Information Administration (NTIA) should establish expedited and favorable (at least tie-breaker) consideration for prime contractors that voluntarily include in their bids genuine and substantial first tier minority business enterprise (MBE) participation beyond the minimum federal 8(a) guidelines for MBE utilization.

4. Eligible Grant Recipients

- National intermediary nonprofit organizations should assist Congress in monitoring the operation of all stimulus initiatives to ensure that contracting practices are free of entry barriers and other practices that thwart the usage of SDBs.

5. Establishing Selection Criteria for Grant Awards

- An especially high priority should be SDB status or non-SDB partnerships with SDBs (ARRA Sec. 6001(h)(3)), both as prime contractors and subcontractors.

- NTIA should give preference to proposals that include HBCUs, HSIs, NASIs and AASIs and well as nonprofit institutions that focus on broadband training and broadband adoption initiatives.

- Priority should be given to contractors that voluntarily include in their bids genuine and substantial first tier MBE participation beyond the minimum federal 8(a) guidelines for MBE utilization.

- Priorities for unserved and underserved communities should account for structural factors such as poverty, unemployment, race and language.

- Priorities should generally <u>not</u> be given to proposals that serve several of the populations identified in the Recovery Act, or provide service to different types of areas, since these priorities would have the effect of creating a market entry barrier by encouraging "bundling" of projects, thus inherently favoring very large applicants over SDBs and small businesses.

6. Grants for Expanding Public Computer Center Capacity

   - Priority should be afforded HBCUs, HSIs, NASIs, AASIs, and nonprofit organizations that provide broadband training.

7. Grants for Innovative Programs to Encourage Sustainable Broadband Adoption

   - Grants should stimulate broadband adoption and telecom literacy for low-income, minority and multicultural consumers or provide technical assistance and training for emerging telecom MBEs.

8. Broadband Mapping

   - Maps should display broadband availability, competitive service, speed, price and adoption rates for each of these social metrics: poverty status, income, race and language.

   - Mapping should be performed on a longitudinal basis, with new data available every three months.

   - Source data should be verifiable, taking due account of concerns for the protection of proprietary data.

9. Financial Contributions by Grant Applicants

   - A rebuttable presumption should be adopted to specify that HBCUs, HSIs, NASIs and AASIs, as well as nonprofit organizations, would not be expected to generate, internally or from third-party sources, 20% of a project's cost.

10. Coordination with USDA's Broadband Grant Program

    - RUS should use the USDA's existing Section 8(a) authority to track NTIA's 8(a) priorities for BTOP.

11. Definitions

    - The Small Business Act permits federal agencies and departments to adopt their own size standards rather than relying on the default size standards developed by the SBA. NTIA should adopt size standards for SDBs that will maximize MBE participation, i.e., a 51% minority voting interest in the company controlled by disadvantaged persons or entities.

12. Measuring the Success of NTIA's BTOP Program

    - NTIA should establish and fund a National Minority and Broadband Training and Technical Council.

13. Additional Issues

    - Outside reviewers should have expertise in administering programs with 8(a) SDB components.

    - An entity that does not receive funding in one round should be eligible to reapply in subsequent rounds.

    - SDB monitoring, coordination, and outreach should be undertaken by a resuscitated, well funded and fully staffed Minority Telecommunications Development Program (MTDP).

* * * * *

UNITED STATES DEPARTMENT OF COMMERCE
National Telecommunications and Information Administration
Washington, D.C. 20230

MAY 14 2009

The Honorable Henry A. Waxman
Chairman
Committee on Energy and Commerce
House of Representatives
Washington, DC 20515

Dear Chairman Waxman:

Thank you for your letter of May 1, 2009, with follow-up questions to the April 2, 2009 hearing before the Energy and Commerce Committee's Subcommittee on Communications, Technology, and the Internet to discuss the oversight of the broadband stimulus provisions of the American Recovery and Reinvestment Act. I appreciated the opportunity to testify before the Subcommittee regarding the efforts of the National Telecommunications and Information Administration (NTIA) and the Broadband Technology Opportunities Program (BTOP).

Enclosed are my responses to your questions. If you have any additional questions, please do not hesitate to contact me or James Wasilewski, NTIA's Director of Congressional Affairs, at (202) 482-1551.

Sincerely,

Mark G. Seifert

Mark G. Seifert
Senior Advisor to the Assistant Secretary for
Communications and Information

Post-Hearing Questions for the Record
Mark Seifert, Senior Policy Advisor
National Telecommunications and Information Administration
U.S. Department of Commerce
May 14, 2009

Responses to Questions from Representative Mike Doyle

Question 1: I'd like to focus today on the distinction in the stimulus bill between what we intended for your agencies, and the distinction between unserved and underserved. When we voted for the stimulus bill, we envisioned that unserved rural areas to be served by the funds given to the Rural Utility Service. We knew there are a lot of communities out there that are unserved, so we are also letting the NTIA take a crack at it too. But by talking about the underserved in the bill too, we didn't want this to be a simply rural conversation.

If they haven't already, I'd like to task each of the witnesses to listen to the two panels from the July 21st, 2008 public hearing on the future of the internet that the FCC held in Pittsburgh at Carnegie Mellon. I was there for the whole thing and I thought it was fascinating. There were several witnesses at that hearing - mostly on the 2nd panel - whose testimony and their time during Q and A focused directly on the issues before us today.

To me, and other Members who represent more concrete than corn fields, it doesn't matter if a wire passes by their house, or electromagnetic waves radiate broadband through their body - we are underserving our citizens if they're not actually on the Internet. At the Pittsburgh hearing, a constituent and CMU professor, Rahul Tongia pointed out his research that as news and information, government applications, and other services move online and as more people around the world get online - the effect is not only that those who get online can get ahead, but this is the important party -- those who aren't online are left exponentially further behind.

Scott Wallsten, an economist and frequent witness before this Committee, said in his statement at the Pittsburgh hearing that the real underserved populations are not rural per se but poorer communities in general.

I found that interesting, in light of the public perception that there's a broadband duopoly of cable and DSL - and that we urban areas have plenty of broadband choices. In the city of Pittsburgh - many of my constituents can only pick from 1 of those providers. Not even a duopoly there. If we find there are two types of underserved regions, low-income rural and non-rural communities, then it would be important to understand the differences and then to solve each problem in a different way.

The day after that field hearing now-Chairman Copps and my staff visited some computer labs in the Bloomfield and Hill District neighborhoods in Pittsburgh that are served by a non-profit wireless network - their board chair Rendell Harper testified at the

FCC hearing. And we came across a 10 year old girl who was on her way to one of the labs. After some prodding, she told us that the group had set her grandmother and her up with a computer surplussed from her school. And her grandmother bought broadband for her grandchildren. But after a few months, the computer got infected with viruses and spyware. That malware knocked her connection offline. The ISP couldn't help, and the grandmother couldn't afford a service that didn't work. In this case, it isn't a network issue, it isn't a demand stimulation issue. It's a training issue. **Do you have a commitment to connecting underserved populations in non-rural areas, and how will you do this?**

Answer: The Broadband Technology Opportunities Program (BTOP) in the American Recovery and Reinvestment Act of 2009 (Recovery Act) directs NTIA to address the broadband needs of both "unserved" and "underserved" areas, whether they be urban, suburban, rural, or frontier – and facilitating greater use of broadband services. The statute directs NTIA to provide access to broadband services to consumers in unserved areas and to provide improved access to broadband service to consumers residing in underserved areas. Our goal is to address both of these critical needs in advancing the Nation's broadband infrastructure needs. NTIA recognizes that the broadband infrastructure development and demand challenges facing rural Pennsylvania may differ markedly from the challenges facing downtown Pittsburgh. To that end, NTIA has been directed to provide support for broadband education, awareness, training, access, equipment and support to strategic institutions, including schools, job-creating facilities, libraries, and healthcare providers. In carrying out this responsibility, NTIA will be coordinating closely with the U.S. Department of Agriculture Rural Utilities Service (RUS) to ensure that program funds are used in the most effective and efficient way possible. NTIA will dedicate considerable attention to the needs of underserved Americans in non-rural as well as rural communities.

Question 2: Do you intend to fund projects that do not propose to get people online, but will instead help underserved communities understand the benefits of getting connected, as well as how best to use an internet connection?

Answer: The Recovery Act specifies that BTOP be designed to "stimulate the demand for broadband, economic growth, and job creation" and provides at least $250 million for sustainable broadband adoption. This amount is a floor, not a ceiling. NTIA has also been directed to provide support for broadband education, awareness, training, access, equipment and support to strategic institutions, including schools, job-creating facilities, libraries, and healthcare providers. The statute, therefore, encompasses training and "demand-side" projects that will assist communities in developing an understanding of the benefits of broadband. There is a wide range of possible methods that NTIA may employ to solicit demand-side projects, and the agency is seeking input from the public on these issues. NTIA is reviewing the public comments submitted in response to its March 12, 2009 Request for Information and will structure the several programs within BTOP to ensure the most efficient and effective distribution of competitive grant funds consistent with the statute.

Question 3: Your agencies are not alone in funding the wires in buildings that could be connecting people to the Internet - and certainly others are funding projects to create rich internet applications that rely on broadband connections, such as those for after-school programs. **Is your agency working with other federal departments that are or should be funding broadband connectivity or innovative applications and tools that depend on broadband connectivity? If so, how have those communications impacted your grant making processes under the responsibilities of the ARRA?**

Answer: Since the passage of the Recovery Act, NTIA has coordinated closely and regularly with the RUS, the Federal Communications Commission (FCC), as well as a number of other relevant Federal agencies. Given that RUS has received $2.5 billion in the Recovery Act for broadband grants and loans, it is critical that these funds be leveraged with NTIA's $4.7 billion. To that end, NTIA and RUS are coordinating their definitions of important terms, such as "broadband." The agencies are also ensuring proposed service areas—whether they are in "rural," "unserved," or "underserved" areas—be carefully defined to eliminate redundancy across the broadband programs. Finally, NTIA and RUS are coordinating closely on their respective application kits and guidelines to leverage efficiencies and to minimize the burden on applicants to the extent practicable.

NTIA is also closely coordinating with the FCC in at least two important ways. First, NTIA is consulting with the FCC on defining key policy terms for purposes of BTOP, such as the definition of broadband, unserved, and underserved—as well as key interconnection and non-discrimination program requirements. Second, NTIA is working with the FCC in developing the national broadband mapping program, with the FCC providing expert policy and technical advice in implementing the mapping program.

Furthermore, NTIA has been sharing information and coordinating closely with other Federal agencies through an interagency broadband coordination group convened by the White House. It is critical that NTIA's broadband infrastructure investments dovetail with and leverage other important and related infrastructure development initiatives, such as the national smart grid, the advancement of electronic medical records, and the building of roads and highways. To that end, NTIA is coordinating with the U.S. Department of Energy, U.S. Department of Health and Human Services, and the U.S. Department of Transportation, among others, to ensure maximum coordination and leverage.

Because NTIA will be providing grants to expand public computer center capacity, the agency is also working with the Institute of Museum and Library Services (IMLS) and the U.S. Department of Education to ensure NTIA is not duplicating efforts. Moreover, NTIA is working with the Office of Advocacy at the Small Business Administration (SBA) and the U.S. Department of Housing and Urban Development (HUD) to benefit from their expertise in advancing innovative programs to encourage sustainable adoption of broadband service.

Questions 4 - 6: I believe in the power of open networks and have experienced the benefits of members of the public using government-collected information in vibrant, exciting and

useful ways that the data gathers never themselves foresaw, but nonetheless use every day. **If the underlying data, such as availability, speed and pricing information, collected for the FCC and NTIA's mapping efforts is collected by or placed under a non-profit entity: Would it still be subject to the same due process and open records obligations of a government entity? Would that data be verifiable? Could members of the public use that underlying data to mashup, so to speak, with other public information providing new benefits to the public that the mere map alone would not provide?**

Answer: Section 6001(l) of the Recovery Act directs that "the Assistant Secretary shall develop and maintain a comprehensive nationwide inventory map of existing broadband service capability and availability in the United States that depicts the geographic extent to which broadband service capability is deployed and available from a commercial provider or public provider throughout each State." Congress further directed that such a map be available on NTIA's website "in a form that is interactive and searchable" no later than February 17, 2011. On March 12, 2009, NTIA and RUS published a joint Request for Information (RFI) seeking public comment on a number of policy and procedural issues related to establishing the BTOP, including detailed questions relating to broadband mapping. NTIA received over 1,000 comments in response to the RFI by the April 13, 2009 deadline. NTIA is currently reviewing the record, which included many comments exhibiting a wide range of opinions about the treatment of data obtained in the broadband mapping process. It is NTIA's intention to maximize the value of such information to the American people, in an appropriate manner, while fulfilling the intention of Congress that the map be "comprehensive" and "interactive"—and achieving the President's goals of openness, transparency, and accountability.

Post-Hearing Questions for the Record
Mark Seifert, Senior Policy Advisor
National Telecommunications and Information Administration
U.S. Department of Commerce
May 14, 2009

Responses to Questions from Representative Donna Christensen

Question 1: Section 6001(e) (1) (A) of the Recovery Act includes both states and territories of the United States as entities eligible for a broadband grant. Section 6001(c) of the Recovery Act authorizes NTIA to consult with a state or territory of the United States in identifying unserved or underserved areas or allocating grant. Both provisions treat a territory and state synonymously. This same approach should extend to all aspects of the broadband provisions of the Recovery Act, specifically Section 6001(h) (1) which directs NTIA, to extent practical, to award not less than one grant to each State. Although territories are not specifically mentioned in Section 6001(h) (I), Congress presumably intended to include territories within this provision when the statue is read as a whole. **Does NTIA follow this interpretation of the statute?**

Answer: Thank you for sharing your views on the matter of how NTIA should implement the Broadband Technology Opportunities Program with respect to U.S. Territories. Your views on this matter will be included in the public record of this proceeding and given every consideration as the agency develops the Notice of Funds Availability (NOFA) that it plans to publish in the summer of 2009. NTIA intends to adhere to the intent of Congress that grants be awarded in a geographically-neutral manner, and will take all appropriate measures to ensure that States and territories are treated fairly and that funding criteria are transparent to the American people.

Question 2: NTIA and RUS have conducted a series of public meetings during which various organizations were permitted to offer their views on the numerous issues confronting both agencies in implementing the broadband grant program. While the meetings have been informative in helping to frame issues, little information was shared by either NTIA or RUS concerning how the program will actually be implemented. **NTIA and RUS have indicated that funding will be awarded in three phases. If an applicant applies in the first phase but the application is not successful, will the applicant automatically be considered in the second phase or must the applicant reapply?**

Answer: The statute requires that all funds be obligated by September 2010. In order to meet this requirement and to allow all participants a chance to apply, NTIA plans to allow applicants three opportunities to apply for BTOP funds over the life of the Program. The agency's current plan is to publish a NOFA this summer and to hold workshops across the country soon thereafter to answer questions about the application process. This process would be repeated in late calendar year 2009 and again in spring 2010, so that prospective applicants who are not ready this summer can prepare to apply for BTOP funds during the second or third rounds. The three rounds would also allow NTIA to make program adjustments based on the experience from the earlier rounds. NTIA

believes that having several opportunities for organizations to apply is equitable and effective. Some applicants will be ready to go from the beginning of the program while others will need more time to undertake planning activities, develop business plans, map broadband availability, and build the necessary partnerships to assure project sustainability. These activities may take some applicants months to complete. Additionally, applicants that do not succeed in the first round may consider retooling their application and possibly submitting it jointly along with other applicants in later rounds. While NTIA has not made a determination yet as to whether applicants will be automatically considered in subsequent rounds, NTIA anticipates that this and other questions will be clarified in the NOFA planned for publication this summer.

Question 3: In order for the Broadband Technology Opportunities Program to be successful, it is imperative that parties interested in obtaining funding from NTIA and RUS understand the process by which such funding will be disbursed. **Will NTIA and RUS accept consolidated applications through which multiple entities may partner together in order to receive a federal grant?**

Answer: NTIA views these grants as a test-bed or proof of concept for sustainable, viable, and scalable projects. As such, NTIA encourages partnerships between small businesses, municipalities, and others that may demonstrate nontraditional but effective ways of getting broadband into communities. As mentioned previously, NTIA and RUS have solicited public input through a joint RFI, and have received more than 1,000 responses. NTIA is in the process of reviewing these comments and will incorporate them as appropriate into the NOFA the agency intends to publish this summer, which will explain in great detail the application process, criteria for evaluation, as well as how grantees will be held accountable. Soon after the NOFA is published, NTIA plans to hold regional workshops to raise awareness of BTOP and answer questions about the grant application process.

Question 4: In addition to the process by which broadband grants will be awarded, NTIA and RUS must resolve a host of issues that were left unresolved by the legislation. These include defining such critical terms as "unserved" and "underserved," as well as specifying the role of the states and territories. **What guidance will be used to define "unserved" vs. "underserved?" How long will applicants be given to submit their applications once guidance has been issued?**

Answer: The Recovery Act requires NTIA to define the terms "unserved" and "underserved," as well as to define "broadband," and adopt non-discrimination requirements and network interconnection obligations. NTIA, FCC, and RUS are working in close coordination – and have solicited substantial public input – with regard to these definitions. The FCC has sought and received public comment on its appropriate role in defining such terms, and NTIA and RUS published a joint RFI on March 12, 2009, seeking the public's input on these definitions, as well as a number of other policy and procedural issues related to establishing the BTOP. NTIA received over 1,000 comments in response to the RFI by the April 13, 2009 deadline. NTIA is in the process of reviewing the public comments filed in response to the RFI and plans to issue a Notice of Funds Availability (NOFA) this

summer to allow eligible entities to apply for BTOP funds. NTIA will hold workshops across the country soon thereafter to answer questions about the application process.

Question 5: As the FCC, NTIA and RUS are well aware, deploying broadband in rural areas remains a substantial challenge. Territories, in particular, higher cost in deploying broadband due to geography and topography. Adding to this cost are excise tax, gross receipt tax and custom duty fees. **What provisions, if any, are being considered to mitigate the higher cost of broadband deployment in the territories and insular areas?**

Answer: NTIA appreciates you bringing this issue to our attention and understands that broadband deployment costs depend on geography, topography, as well as local, State, or territorial taxes and fees. The Recovery Act states that the Assistant Secretary may consult a State, the District of Columbia, or territory or possession of the United States with respect to the identification of unserved or underserved areas and the allocation of grants funds within or affecting that area. NTIA has already begun actively soliciting input from these entities through its RFI process as well as through their consultative role and will continue to work closely with them so that the common goals of expanding broadband access and growing the economy may be achieved.

Question 6: Will the Broadband Technology Opportunities Program be a technology neutral program; not favoring one technology over another? For example, will applicants be allowed to have a broadband deployment plan that may consist of a combination of wireless, fiber and copper?

Answer: NTIA intends to operate the BTOP in a manner that is fully consistent with the principle of technological neutrality. As stated earlier, NTIA encourages partnerships that may demonstrate nontraditional but effective ways of getting broadband into communities. This may include a combination of technologies and innovative approaches. As instructed by the Recovery Act, NTIA will award grants based on whether an application will increase affordability, subscribership, and speeds; enhance service for health care delivery, education, or children; and will not result in unjust enrichment. The Recovery Act states that to be eligible for a grant under the program, an applicant shall be a government, non-profit, or broadband provider found by rule to be in the public interest. Congress further instructs NTIA to promote the purposes of this section "in a technologically neutral manner." NTIA is also mindful that the Recovery Act's Conference Agreement instructs NTIA to award grants, to extent practicable, for projects that provide the "highest possible, next-generation broadband speeds to consumers."

Post-Hearing Questions for the Record
Mark Seifert, Senior Policy Advisor
National Telecommunications and Information Administration
U.S. Department of Commerce
May 14, 2009

Responses to Questions from Representative Cliff Stearns

Question 1: The American Recovery and Reinvestment Act of 2009 (ARRA) requires grant recipients participating in NTIA's Broadband Technology Opportunities Program to submit quarterly reports on their "use of the assistance and progress fulfilling the objectives for which such funds were granted." In addition, NTIA "may establish additional reporting and information requirements" and "shall establish appropriate mechanisms to ensure appropriate use and compliance with all terms of any use of funds." While the ARRA does not contain specific language addressing reporting requirements for recipients of RUS grants, loans, or loan guarantees, we believe it is within the discretion of the RUS to collect such information.

Tracking how the money is used will help combat waste, fraud, and abuse. Since the funding will be distributed in waves, reporting requirements can also help the agencies fine tune the programs as they progresses. Moreover, monitoring the extent to which projects succeed in meeting the goals of the ARRA-and do so in a cost-effective manner-will increase accountability and provide valuable information as we continue efforts to promote broadband deployment and adoption.

The ARRA contains several goals, including those set forth in the purposes and selection criteria. NTIA and RUS should develop performance measures for each goal. Specifically, NTIA and RUS should create at least one associated outcome measure and one associated efficiency measure to determine whether the goal is being achieved, and in an economically efficient way.

For example, one purpose of the ARRA is to "provide access to broadband service to consumers residing in unserved areas of the United States." An appropriate outcome measure for this goal would be to track the change in availability of broadband service to households and businesses in unserved areas as a result of the program. An appropriate efficiency measure for this goal would be to calculate, per million dollars spent, the change in the number and percent of homes to which broadband becomes available as well as in the number and percent that subscribe.

Another purpose of the ARRA is to increase broadband use by schools and libraries, healthcare providers, and public safety entities - presumably to improve educational, health, and public safety outcomes. Therefore, to use health care as an example, an appropriate outcome measure would be to track the increase in use of broadband by health care providers as a result of the program. An appropriate efficiency measure would be to measure, per million dollars spent, the improvement in health outcomes and the reduction in health care costs attributable to the increased broadband access.

The ARRA selection criteria provide another source of potential goals. For instance, NTIA must consider, to the extent practical, whether an application will "result in the highest possible broadband speeds." Should NTIA make selections based on this criterion, it should implement performance measures to evaluate the success in meeting this goal. An appropriate outcome measure would be to track the change in available broadband speeds as a result of the program. An appropriate efficiency measure would be to measure the change in speed per million dollars spent.

Similarly, NTIA must consider, to the extent practical, whether an application will "increase affordability and subscribership." If NTIA makes selections based on this criterion, an appropriate outcome measure would be the change in price and subscription rates as a result of the program. Appropriate efficiency measures would include measuring, per million dollars spent, the change in ratio of price as a percent of income and the change in penetration rate or number of subscribers.

Once NTIA and RUS have designed and implemented specific performance measures based on the goals of the ARRA, NTIA and RUS should require recipients to report on progress towards meeting those goals that are relevant to the particular project, using the relevant performance measures. The agencies should also provide estimates of the expected results for each measure for each approved project.

In addition, NTIA and RUS should consider instituting relevant benchmarks and issuing payments in installments as recipients meet the benchmarks. If a recipient fails to meet a benchmark, NTIA and RUS should require the recipient to submit a detailed plan describing how it will meet future benchmarks. If the recipient misses a second benchmark, NTIA and RUS should de-obligate funding and require return of the previously committed funds related to the missed benchmarks.

All this information should be made publically available, including on the agencies web sites.

Please explain whether your agencies agree or disagree with these recommendations, and why. If your agencies are considering different oversight and reporting requirements or performance measures, please describe them.

Answer: Thank you for your input regarding oversight, accountability, and performance measures. NTIA shares your commitment to combating waste, fraud, and abuse, and in ensuring the highest levels of accountability and transparency for grant recipients as well as NTIA. NTIA will carefully consider these ideas as it develops the Notice of Funds Availability (NOFA), which will be published this summer and will describe in detail how the application process will work, how applications will be evaluated, as well as how grantees will be held accountable -- such as requirements concerning progress reports or job creation measurements -- to ensure that taxpayer investments are protected. One of the very first actions undertaken by the BTOP Program was the transfer of ten million dollars to the Inspector General (IG), as required by the Recovery Act, to ensure vigorous

oversight of these grant funds. NTIA has been meeting with the IG and his staff to ensure that the program design incorporates appropriate safeguards from the outset to protect taxpayers' investment. NTIA and RUS published a joint RFI on March 12, 2009 seeking public comment on development of the BTOP program, and, in particular, seeking input on selection criteria, measuring success of the program, as well as reporting requirements for grant recipients. NTIA received over 1,000 comments in response to the RFI by the April 13, 2009 deadline. NTIA is presently reviewing and analyzing the record and will incorporate these ideas into the NOFA it intends to publish this summer.

Federal Communications Commission
Washington, D.C. 20554

May 15, 2009

The Honorable Henry A. Waxman
Chairman
Committee on Energy & Commerce
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Waxman:

Please find enclosed my responses to the post-hearing Questions for the Record from the April 2, 2009 Subcommittee on Communications, Technology & the Internet hearing on "Oversight of the American Recovery and Reinvestment Act: Broadband."

Please do not hesitate to contact me if I can be of further assistance.

Sincerely,

Scott Deutchman
Acting Senior Legal Advisor
Office of Michael J. Copps
Acting Chairman

Enclosure

Questions for the Record
"Oversight of the American Recovery and Reinvestment Act: Broadband"
April 2, 2009
Committee on Energy and Commerce
Subcommittee on Communications, Technology, and the Internet

The Honorable Mike Doyle

1. **Do you have a commitment to connecting underserved populations in non-rural areas, and how will you do this?**

Answer: Congress charged the Commission with the important task of developing a national broadband plan. I expect that a principal goal of the national broadband plan will be to ensure broadband access for *all* Americans, regardless of whether they live in urban or rural areas. The Commission initiated the process of developing this national broadband plan by issuing a Notice of Inquiry (NOI) in April. The NOI asks questions concerning the development of a strategy for achieving affordability and maximum utilization of broadband as well as improving computer literacy and computer ownership. The Commission is also seeking comment on how it should define and measure broadband to ensure quality broadband access over time. Acting Chairman Copps appreciated the opportunity to attend the hearing in Pittsburgh in July 2008 and he saw first hand the importance of effectively stimulating broadband demand during his visit with the non-profit organization Wireless Neighborhoods in Pittsburgh. Therefore, the Commission is looking at these issues as part of its consideration of a national broadband plan.

2. **Do you intend to fund projects that do not propose to get people online, but will instead help underserved communities understand the benefits of getting connected, as well as how best to use an internet connection?**

Answer: While the Commission is not responsible for the distribution of funds under the Recovery Act, we are examining the many factors that influence consumer decisions to use broadband and the Internet in the context of developing a national broadband plan. In its Notice of Inquiry on developing a national broadband plan, the Commission sought comment on how to develop a strategy for improving digital literacy and broadband demand. Understanding consumer decisions will help the Commission develop a meaningful national broadband plan to ensure broadband access for everyone in the United States. As you mention, of particular importance is ensuring that people understand the value of broadband Internet access. The benefits of Internet access include everything from obtaining news, information, entertainment, and government services to entrepreneurship, telemedicine, and telecommuting to name a few.

3. **Your agencies are not alone in funding the wires in buildings that could be connecting people to the Internet – and certainly others are funding projects to create rich internet applications that rely on broadband connections, such as those for after-school programs. Is your agency working with other**

federal departments that are or should be funding broadband connectivity or innovative applications and tools that depend on broadband connectivity? If so, how have those communications impacted your grant making processes under the responsibilities of the ARRA?

Answer: While the Commission is not directly responsible for the distribution of grants under the Recovery Act, Congress tasked the Commission with the development of a national broadband plan, a significant element of which will likely be the coordination of federal, as well as tribal, state, and local government broadband efforts. Further, the Chairman will issue a report later this month pursuant to the 2008 Farm Bill outlining a rural broadband strategy focusing significantly on the coordination of federal agency policies, programs, and resources to advance broadband. Finally, the Commission is also working with NTIA and RUS, pursuant to its consultative role set forth in the Recovery Act, to assist them in the development of certain definitions for purposes of their grant making processes. Commission experts are also working with NTIA on the development and implementation of a comprehensive broadband mapping inventory for the country.

If the underlying data, such as availability, speed and pricing information, collected for the FCC and NTIA's mapping efforts is collected by or placed under a non-profit entity:

4. **Would it still be subject to the same due process and open records obligations of a government entity?**
5. **Would that data be verifiable?**
6. **Could members of the public use that underlying data to mashup, so to speak, with other public data information providing new benefits to the public that the mere map alone would not provide?**

Answer 4-6: Pursuant to the Recovery Act we currently are assisting the NTIA in developing a comprehensive nationwide broadband map. NTIA and RUS released a Request for Information on March 12, 2009 which asked the public to comment on a number of important issues including on broadband mapping. While the development of the process for collecting data is still under consideration, it will certainly be important to collect reliable and verifiable broadband data that will provide the Commission, policy makers, and most-importantly, all Americans, a sound basis for decisions. Mapping, for example, provides a powerful and expressive way to convey information and may be uniquely suited to explaining the status and progress of broadband service availability and infrastructure deployment. As with any presentation of information, the utility of the information is only as good as the accuracy and reliability of the underlying data. Permitting researchers and the public to access broadband data will undoubtedly lead to a greater understanding and dialog about broadband policy choices. Thus, it will be important that granular, accurate and reliable data be collected and made available to the public to the maximum extent possible, recognizing that there are sometimes competing concerns of technical limitations, confidentiality, and infrastructure security.

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