

**CORPORATION FOR EDUCATION INITIATIVES IN CALIFORNIA (CENIC)
COMMENTS TO NTIA AND RUS ON THE 2ND ROUND NOFA
November 27, 2009**

Executive Summary

CENIC believes the second round of awards in the BTOP/BIP program are pivotal in laying the foundation to move this nation from “first generation broadband” to “next generation connectivity”, as recently described in a major study completed by the Harvard University Berkman Center for the FCC. According to the study, entitled “*Next Generation Connectivity: A review of broadband Internet transitions and policy around the world*” achieving “next generation connectivity” involves two overlapping foci—deploying high bandwidth capacity (best done with the nearly unlimited capacity of fiber) and providing the user ubiquitous, seamless connectivity. We make two key recommendations as to how the second round proposal guidelines might be framed to move this nation closer to the goal of “next generation connectivity”.

1. Make Anchor Institutions the Keystone to Future Infrastructure Deployment

CENIC subscribes to the Schools, Libraries and Health (SHLB) Coalition definition that anchor institutions include schools, hospitals and libraries. CENIC would also add emergency service and community based organizations to this group of anchor institutions.

Collectively anchor institutions form the nucleus of the socio-economic system in a community by providing what is needed for personal safety, health and intellectual/social development. Access to the services of these anchor institutions by individual citizens has been and must continue to be a major pillar in our society not only now but for generations to come.

Of the various types of anchor institutions CENIC contends that educational institutions are the major drivers of intellectual, social and economic development in any community. If not the major employer in the community, they are among the leaders and engage more of the population in the geographic area in the use of networking during the course of the day than any other entity. In essence education institutions are the equivalent of a mooring (a permanent anchor) for all other anchor institutions. Still, the real pay off is when a project involves multiple anchor institutions in a community.

2. Deploy Scalable Underlying Technologies

The current broadband network infrastructure across this nation is comprised of a mixture of underlying technologies—cable, copper, fiber, satellite and wireless. With the exception of fiber, all of these technologies have serious limitations in terms of being able to scale and expand transmission (speed) capacity to meet the evolving needs and requirements of the users. CENIC suggests that as part of the

second round criteria that proposals that deploy fiber as the underlying technology receive major weighting consideration.

I. Introduction

CENIC appreciates the opportunity to provide comments and make suggestions to NTIA and RUS on how the NOFA guidelines might be adjusted for the second round of proposals. We believe our over 12 years of experience engaged in deploying and managing an advanced high bandwidth statewide network infrastructure connecting hundreds of universities and colleges and K-12 schools to provide ubiquitous, seamless connectivity for the nearly 10 million students, faculty and staff involved in California's research and education enterprise provides a unique perspective in how to manage the challenges our country faces in providing next-generation connectivity to our diverse communities.

While only 12 years old CENIC can trace its heritage back 40 years to the day in 1969 when a UCLA professor and his graduate students first demonstrated the ability to transmit data over long distances—between UCLA, Stanford and UC Santa Barbara. From that day through today the universities in California have been at the forefront in advancing networking, not only for research and education, but the larger surrounding communities they support. From 1969 until the formation of CENIC in 1997 a number of separate organizations provided networking for California's research and education community. With the creation of CENIC the research and education enterprise in California consolidated its efforts and established a goal to achieve “next generation connectivity” throughout California. For more information on CENIC and its endeavors, please visit <http://www.cenic.org/>

It is from this heritage and experience base that CENIC offers the NTIA and RUS two key recommendations as to how the second round proposal guidelines might be framed to move this nation closer to the goal of “next generation connectivity”. In addition to these recommendations, CENIC offers specific responses to the questions asked by NTIA and RUS in the RFI.

II. CENIC Recommendations

A. Make Anchor Institutions the Keystone to Future Infrastructure Deployment

CENIC subscribes to the SHLB Coalition definition that anchor institutions include schools, hospitals and libraries. CENIC would also add emergency service and community based organizations to this group of anchor institutions.

Collectively the anchor institutions form the nucleus of the socio-economic system in the community by providing what is needed for personal safety, health and intellectual/social development. Access to the

services of these anchor institutions by individual citizens has been and must be a major pillar in our society for generations to come.

Of all these anchor institutions CENIC contends the education institutions are the major drivers of intellectual, social and economic development in any community. If not the major employer in the community, they are among the leaders and engage more of the population in the geographic area in the use of networking during the course of the day than any other entity. In essence education institutions are the equivalent of a mooring (a permanent anchor) for all other anchor institutions. Still, the real pay off is when a project involves multiple anchor institutions in a community.

B. Deploy Scalable Underlying Technology

The current broadband network infrastructure across this nation is comprised of a mixture of underlying technologies—cable, copper, fiber, satellite and wireless. With the exception of fiber, all of these technologies have serious limitations in terms of being able to scale and expand transmission (speed) capacity to meet the evolving needs and requirements of the users.

CENIC suggests that as part of the second round criteria that proposals that deploy fiber as the underlying technology be given major weighting consideration.

In the remainder of this document CENIC offers responses to the questions asked in the RFI issued by NTIA/RUS.

III. The Application and Review Process

A. Streamlining the Applications

CENIC concurs with NTIA and RUS that the BTOP/BIP proposal process should be streamlined for the second round. CENIC suggests the initial Round 2 applications only be required to provide the minimum data necessary to make a judgment on the merits of the proposal. If a proposal is judged to have merit then specific and detailed data should be collected as part of due diligence leading to a final decision on awarding funds. We point you to the SHLB Coalition and QUILT comments for specific suggested changes in the process.

1. New Entities

What type of information should RUS and NTIA request from new businesses, particularly those created for the purpose of applying for grants or funds?

A new business should be required to submit evidence of incorporation and simple financial viability—financial plan.

2. Consortium and Private Public Partnerships

Should certain critical information be requested from all members of such groups? If so, what type of information should be requested?

The major partners (at least two) should be requested to provide critical information as part of the proposal. The critical information should demonstrate organizational and financial stability and experience necessary to implement the proposed project. There should be pointers in the proposal to the websites of the other participants.

3. Specification of Service Areas

What level of data collection and documentation should be required of applicants to establish boundaries of the proposed funded service areas?

Minimize the data collected initially to those data vital necessary to make the judgment on the merits of the proposal. If a proposal is judged to have merit then in the due diligence phase collect the specific and detailed data vital to making a final decision on funding the proposal.

4. Relationship between BIP and BTOP

Should these kind of rural applications continue to be required to be submitted to RUS or should the agencies permit rural applications to be submitted directly to NTIA without having to be submitted to RUS?

No. This requirement leads to duplication both for the submitter and the two agencies. It should be left to the proposing party whether or not to submit directly to NTIA only or to both NTIA and RUS.

How should the NTIA and RUS proceed in a manner that rewards the leveraging of resources and most efficient use of Federal funds?

CENIC advocates rewarding proposals that are built upon making the anchor institutions the keystone to deploying broadband to the wider community in the geographic area. CENIC also advocates rewarding proposals that deploy underlying technology infrastructure that can scale in capacity over time and that could be shared to support non anchor tenants with broadband as well.

CENIC also suggests lowering the matching funding requirement to ten (10) percent.

CENIC believes the 20 percent matching funding requirement is a major barrier that will preclude worthy applications from being developed and submitted in the second round. The fact that unserved and underserved areas exist today is directly attributable to the economics of these situations. For the past two decades telecommunications providers have focused on deploying broadband capabilities in major metropolitan (NFL cities) where they could project a return on their investments.

Some combination of population density, geographic distance and economic status of the consumers (ability to pay) have been the major factors that have resulted in the telecommunications providers determining whether or not an area is served, unserved or underserved. CENIC believes the economic factor of reaching the remaining unserved and underserved areas will be the major challenge in second round applications. Therefore, CENIC recommends the NOFA guidelines for the second round only have a 10 percent matching funding requirement. And, applications without any match not be

discouraged since there may be rare instances where a project has merit to receive 100 percent funding.

B. Transparency and Confidentiality

Should the public be given greater access to application data submitted to BIP and BTOP? Which data should be made publicly available and which data should be considered confidential or proprietary? Right now only the executive summary is made publicly available.

Every proposal should have an executive summary posted. The summary should include a list of standard data elements especially the underlying technology being used, project cost and service area.

C. Outreach and Support

What methods of outreach were most effective? What should be done differently?

The outreach methods in Round #1 worked well. It is important for NTIA and RUS to make sure the FAQs are kept current throughout Round #2.

D. NTIA Expert Review Process

Should NTIA continue to rely on unpaid experts as reviewers? Or, should NTIA consider using solely Federal or contractor staff?

CENIC recommends the continued use of unpaid experts as the best approach. Federal or contractor staff should be used only as last resort. CENIC suggests NTIA and RUS adopt the NSF's grant review process to better handle the potential conflict of interest issues for expert reviewers.

IV. The Policy Issues Addressed in NOFA

A. Funding Priorities and Objectives

How can the NTIA and RUS better target the remaining funds to achieve the goals of the Recovery Act?

CENIC recommends second round funds be targeted to projects that provide broadband capabilities to interconnect anchor institutions in a community to serve as the nucleus for broader deployment in a geographic area over the long range. Collectively the anchor institutions form the nucleus of the socio-economic system in the community by providing what is needed for personal safety, health and intellectual/social development. Access to the services of these anchor institutions by individual citizens has been and must be a major pillar in our society for generations to come.

1. Middle Mile "Comprehensive Community" projects

Should priority be given to those middle mile projects in which there are commitments from last mile service providers to use the middle mile networks to serve end users?

No. CENIC suggests priority be given to projects that involve the anchor institutions. Bonus points should be given when last mile providers are also involved.

Should we target projects that create comprehensive communities by installing high capacity middle mile facilities between anchor institutions that bring essential health, medical and educational services to citizens that they may not have today?

Yes. CENIC subscribes to the Schools Hospitals and Libraries Coalition (SHLB) definition of anchor institutions and would add emergency service entities to this group of anchor institutions.

Should certain institutions such as educational facilities be given greater weight to reflect their impact on economic development or a greater need or use for broadband services? If so, what specific information should RUS and NTIA request?

Yes. Of all the anchor institutions CENIC contends the education institutions engage more of the population in any geographic area during the course of the day than another entity. In essence education is the mooring (permanent anchor) for all the anchor institutions. However, the real pay off is when a project involves multiple anchor institutions in a community.

How important is the private-public partnership aspect to sustainability?

It will depend on the specific circumstance. While cooperation of the public and private sectors may help sustainability of projects in some cases, CENIC believes it should not be a requirement in the second round guidelines.

Should NTIA consider the number of existing community anchor institutions that intend to connect to the middle mile network as well as number of unserved and underserved communities and vulnerable populations?

Yes.

How should RUS and NTIA encourage appropriate levels of non-Federal matching funds to be contributed so that Federal funds can be maximized?

The response to III.A.4 also applies here.

What extent should geographic footprint as well as overlap with existing service providers be considered?

This is an important consideration. However, two factors need to be considered—underlying technology and low cost to users. If either of those factors is missing then proposals need to be considered.

2. Economic Development

Should the RUS and NTIA seek applications for projects that would systematically link broadband deployment to a variety of complementary economic actions such as workforce training, entrepreneurial development through targeted regional economic development strategic plans?

No. However, applications that demonstrate linkage to a variety of economic actions should be given additional points.

Should there be priority to states or regions with high unemployment or exceptional economic hardship?

No. This program has long-term goal to connect all citizens to broadband. Targeting current high unemployment regions may or may not help achieve this goal. However projects with current high unemployment rates should be given additional points.

3. Targeted Populations

Should the RUS and NTIA allocate a portion of the remaining funds to specific population groups, e.g. tribal entities or public housing?

No. Rather, projects that include serving specific groups that traditionally are unserved or underserved should be given additional weight in making the awards.

B. Program Definitions

1. Unserved and Underserved

Current definitions of unserved and underserved are unclear and overly restrictive – how should these definitions be revised? Should they be modified to include a factor for affordability or socioeconomic composition of a defined service area? Should agencies adopt more objective and readily verifiable measures? How should satellite-based proposals be evaluated against these criteria?

CENIC believes next round funding should focus on anchor institutions as the priority. Those proposals that also provide services to unserved and underserved areas should receive higher ranking in the award process.

2. Definition of Broadband

Should the definition of broadband include a higher speed and should the speeds relate to the types of projects? Should the agencies incorporate actual speeds into the definition of broadband and forego using advertised speeds? If so, how can actual speeds be consistency measured?

No. The definition of broadband today will not satisfy the requirements of tomorrow. Therefore, instead of relating speed with types of applications, proposals that demonstrate an ability to increase the broadband speed by using scalable underlying technology to meet the needs and requirements in the future should be given greater weight in making the awards.

3. Definition of Remote Area

Current definition of remote area is 50 miles from a non-rural area. Should this definition be modified? Are there other factors in determining award decision besides distance? E.g. income levels, geographic barriers, population densities

CENIC believes distance is not the best criterion to define a remote area. CENIC recommends the priority order of the criteria should be geographic barriers, population densities, income levels, and distance in miles.

C. Public Notice of Service Areas

Current process allows for existing broadband services providers to comment on the applicants' assertions funded service to areas either unserved or underserved. How should the public notice process be refined to address this concern? What other verification methods could be established? Should the public notice process be superseded where data becomes available through mapping efforts? What type of information should be collected from the entity questioning the service area and what should be publicly disclosed?

CENIC agrees that existing broadband service providers must be allowed to comment on proposals. However, the service provider filing the comment must provide concrete evidence it is providing the required services. Its data should include the penetration rates, the underlying technology being used and the cost for services. This information should be publicly disclosed.

D. Interconnection and Nondiscrimination Requirements

Although RUS/NTIA are not inclined to make significant changes to the Interconnection and Non-discrimination issues, are any minor adjustments to these requirements necessary?

No changes are necessary.

E. Sale of Project Assets

Some have commented this language is a barrier to participation in BIP and BTOP. Should this section be revised to adopt a more flexible approach toward awardee mergers, consistent with USDA and DOC regulations while still ensuring that awardees are not receiving unjust enrichment from the sale of award funded assets?

CENIC believes mergers should be allowed that are consistent with USDA and DOC regulations as long as the awardees are not able to profit from the merger.

Summary

CENIC appreciates the opportunity to provide this feedback. As a non-profit that has provided advanced networking to nearly 10 million people involved in the California research and education community for over a decade, we understand the importance of enabling all citizens in this country access to the very best in network access. We believe our recommendations to use anchor institutions as the keystone to future infrastructure deployment with scalable underlying technologies will strongly support the BTOP/BIP program to help accelerate advanced broadband capabilities to all.

ATTACHMENT #1



California's education and research communities leverage their networking resources under CENIC, the Corporation for Education Network Initiatives in California, in order to obtain cost-effective, high-bandwidth networking to support their missions and answer the needs of their faculty, staff, and students. For more information, please visit <http://www.cenic.org/>

CENIC designs, implements, and operates CalREN, the California Research and Education Network, a high-bandwidth, high-capacity Internet network specially designed to meet the unique requirements of these communities, and to which the vast majority of the state's K-20 educational institutions are connected. In order to facilitate collaboration in education and research, CENIC also provides connectivity to non-California institutions and industry research organizations with which CENIC's Associate researchers and educators are engaged.

CalREN consists of a CENIC-operated backbone to which schools and other institutions in all 58 of California's counties connect via leased circuits obtained from telecom carriers or fiber-optic cable. In the map to the left, the CalREN backbone fiber network is shown in white, while orange circles indicate network connection points or circuit aggregation facilities.

CENIC is governed by its member institutions. Representatives from these institutions also donate expertise through their participation in various councils designed to ensure that CENIC meets the needs of its constituencies and that the network evolves as technology advances.