

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of:

Rural Health Care Support Mechanism

WC Docket No. 02-60

**COMMENTS OF ADVANCED REGIONAL COMMUNICATIONS COOPERATIVE ON BEHALF OF
CLARION HOSPITAL, CLARION, PENNSYLVANIA**

INTRODUCTION AND BACKGROUND

The Advanced Regional Communications Cooperative (ARCC) is a non-profit cooperative centered in rural Clarion County, Pennsylvania. ARCC is dedicated to developing and sustaining an open-access high-speed broadband network throughout the Clarion region. ARCC's members include several important anchor institutions, including Clarion County Government, Clarion Hospital and Clarion University, as well as numerous business organizations, such as the Clarion County Economic Development Corporation, and individual business.

The Clarion region is one of the most rural communities in the Commonwealth of Pennsylvania – it is also a region that is extremely underserved by modern high-speed broadband service. While there are many miles of broadband infrastructure crossing through the region, these “core” systems are not accessible for distributed use. Additionally, the geography of the region, which consists of hills and valleys, reinforces the rural and somewhat isolated nature of much of the region's population. While the county's population was estimated at 40,000 in 2008 by the United States Census, only around 6,000 residents live in the Borough of Clarion, which is the largest community in the County – and these figures are skewed due to the presence of Clarion University of Pennsylvania. This means that the bulk of the region's population lives in very small towns (fewer than 2,000 residents) or in even smaller hamlets or unincorporated collections of residences.

These facts have a direct impact on the rate and nature of broadband deployment and access across the region. Less than 50 percent of households in Clarion County have access to the minimum broadband speeds defined by the National Telecommunications and Information Administration for qualification under the broadband programs of the Recovery Act. Subscriberhip is at 40 percent of households are less – and there is no fixed or mobile service provider advertising broadband transmission speeds of at least three Mbps downstream.

Not only does this lack of access to high-speed broadband have an impact on Clarion region businesses and residents, but it negatively impacts the operations of anchor institutions in the region, especially Clarion Hospital. As a community-based hospital serving a population of some 68,500 residents across over 1,200 square miles, Clarion Hospital is the main health care resource for the entire area.

Additionally, Clarion Hospital plays a major role in the region's economy. At over 650 employees, it is the second-largest employer in Clarion County after Clarion University. These payrolls provide

over \$25 million annual to a local economy that has seen significant impact from the recession. Many of the community's major businesses have had to downsize or even end operations in face of the current economic challenges – causing severe ripple effects throughout the local economy. As a major anchor institution within the region and one of the founding members of the ARCC, Clarion Hospital is committed to working with community partners and others across the country to help leverage improved high-speed broadband service and access to improve the economy of the Clarion Region.

In addition to this broader goal of supporting economic development, there is a clear need for Clarion Hospital to have access to improved high-speed broadband service. While the Hospital serves as the primary health care resource for the community, the primary health care access point for many of the region's residents lies with primary care doctors based in smaller population centers located throughout the region. These doctors are often located significant distance from the hospital, and bad weather can make accessing the resources of the Hospital even more difficult.

Additionally, the Hospital is facing significant physician challenges in the coming years. Over 65 percent of Clarion Hospital's medical staff is over 55, meaning that the Hospital needs to take significant steps to recruit new physicians. Part of that is improving the Hospital's facilities and equipment, an effort that the Hospital's leadership has already embarked upon. Another part is helping to meet the desires of younger doctors to be able to do work and access patient information from home – something that depends upon high-speed broadband. Unfortunately, the Clarion region currently lacks the infrastructure to support this need.

For those reasons, the ARCC applauds the Commission for its efforts to expand high-speed broadband access to the nation and especially for its focus on broadband access to rural health care providers. The NPRM issued by the Commission sets a solid foundation for improving access to high-speed broadband for rural health care providers. It also recognizes the role that these health care providers play in their communities, especially the role they play as anchor institutions.

That said, there are a number of elements in the NPRM that should be adjusted to better recognize this role and to better leverage it to ensure that the full potential of high-speed broadband service is recognized and utilized by the broader community. The ARCC makes these comments based upon our experience working to develop a high-speed broadband network in the Clarion region. Our work began prior to the passage of the Recovery Act and have involved varied efforts, including outreach to major broadband providers, surveys of community residents and businesses, and application for funding through Recovery Act broadband programs. Such efforts are in-line with the mission for the Universal Service Fund as mandated by Congress and reflect the broad goals for reforming the Rural Health Care Support Mechanism as outlined by the Commission in its introduction to the NPRM.

NPRM COMMENTS

B. Provisions Applicable to Initial Application for Funding

1. Demonstrated Need for Infrastructure Funding

20. Connectivity Speed. We seek comment on setting a minimum threshold for broadband connectivity speeds under the health infrastructure program. The National Broadband Plan suggested that most businesses in the United States, including health care providers, have two choices of broadband service: mass-market, small business solutions of 4 Mbps or more, or dedicated Internet access (DIA) solutions of 10 Mbps or more. Because the focus of the health infrastructure program is to fund dedicated networks, we propose setting 10 Mbps as the

minimum broadband speed for infrastructure deployment supported under the health infrastructure program. We seek comment on this proposal. We also seek comment on minimum levels of reliability, including physical redundancy, to support health IT services and what can be done to encourage reliability. We also seek comment on the minimum quality of service standards necessary to meet health IT needs. We seek comment on whether the health infrastructure program should contain a minimum quality of service requirement.

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IV. HEALTH BROADBAND SERVICES PROGRAM

A. Eligible Services

1. Recurring Costs

97. We seek comment on whether we should define a minimum level of broadband capability for purposes of providing support under the new health broadband services program. The National Broadband Plan suggested that 4 Mbps downstream is the minimum necessary for a solo practitioner to support the deployment of health IT applications today and in the near future, whereas the recommended bandwidth for other health care providers is 10 Mbps for small clinics and health care providers with 2 to 4 physicians, 25 Mbps for larger clinics and health care providers with 5 or more physicians, 100 Mbps for hospitals and 1,000 Mbps for large medical centers.¹⁸¹ Would 4 Mbps be an appropriate minimum for purposes of the new health broadband services program, or should we require different minimum speeds depending on the type of health care provider? Four (4) Mbps could be a sufficient minimum requirement since the health broadband services program would be used to fund broadband services without funding additional infrastructure. In contrast, for the health infrastructure program, given the use of funding specifically for broadband deployment, the minimum broadband speed should be higher.

We also seek comment on minimum levels of reliability, including physical redundancy, to support health IT services and what can be done to encourage reliability. We also seek comment on the minimum quality of service standards necessary to meet health IT needs. We seek comment on whether the health broadband services program should contain a minimum quality of service requirement.

COMMENT – Recognizing that anchor institutions such as hospitals drive broadband adoption throughout their communities, ARCC believes that any minimum speed requirement adopted by the commission should reflect current and near future healthcare applications. The minimum bandwidth standard set by FCC for healthcare infrastructure investments should provide for a robust network capable of providing broadband applications for schools, managing energy use, and to support and drive economic development.

B. Provisions Applicable to Initial Application for Funding

2. Letters of Agency

27. Consortium Applications. We recognize that eligible health care providers may wish to obtain broadband services as part of consortia that may include other entities that are not eligible health care providers. For example, health care providers may join with state organizations, public sector (governmental) entities, and non-profit entities that are not eligible health care providers. The Pilot Program allowed state organizations, public entities and non-profits to act as administrative agents for eligible health care providers within a consortium. We propose retaining this same flexibility for the health infrastructure program. Although state organizations, public entities and non-profits may not constitute eligible health care providers,

they may apply on behalf of eligible health care providers as part of a consortium (e.g., as consortia leaders) to function in an administrative capacity for eligible health care providers within the consortium. In doing so, however, state organizations, public entities and nonprofits would be prohibited from receiving any funding from the health infrastructure program (other than some administrative expenses, as discussed below). We propose that any discounts, funding, or other program benefits secured by a state organization, public sector (governmental) entity or non-profit entity acting as a consortium leader under the health infrastructure program would be passed on to the consortium members that are eligible health care providers.

COMMENT - This very is similar to the model that ARCC has developed. ARCC membership includes, healthcare, emergency services, county government, economic development, and private industry. This consortium will effectively leverage public funds to provide broadband service across the entire community (region), eliminating the necessity investing limited public funds in redundant networks. Much like the use of funds that built the rural electrical needs in the 1930's, essential electricity infrastructure was not built for just one facility or sector of a community, such as hospital, but the infrastructure was develop to provide the necessary infrastructure to the entire community or region.

C. Provisions Applicable After Initial Application

3. Detailed Project Description

53. Health IT Purposes. We propose requiring that, as part of the project description, participants specify how the dedicated broadband network will be used by eligible health care providers for health IT to improve or provide health care delivery.¹⁰⁸ As defined in the National Broadband Plan, "health IT" refers to information-driven health practices and the technologies that enable them. Health IT includes billing and scheduling systems, e-care, electronic health records (EHRs) and telehealth and telemedicine. In adopting the Pilot Program, the Commission recognized the benefits of telehealth and telemedicine. We seek comment on this proposal. Consistent with the National Broadband Plan's recommendation to adopt outcome-based performance goals for the Rural Health Care program, we seek comment below on how best to monitor how participants are utilizing dedicated broadband networks to support these health IT purposes.

COMMENT - Creation of networks that are sustainable will be critical, especially in rural settings that have little redundant support. Providing fiber to the hospital will be critical, but outlying health clinics may not acquire the fiber for many years down the road.

Reimbursements will be driven on meaningful use of Electronic Medical Records (EMR). Wireless systems may be the only means to provide patients with care using EMR. How will healthcare providers show that they can succeed in deploying EMR by 2014 when in many cases the infrastructure is not in place and will not be in place for years to come? Cooper-wire systems are not as reliable and the cost of rewiring is expensive, but may be the only way of communication in the short-term, unless there is the deployment of wireless technology. Unfortunately, current statutory walls, such as the walling off of health dollars to be distributed under this program, make it difficult to bring the economies of scale necessary to make a wireless system make sense from a cost-benefit perspective. The Commission should strongly consider examining the effectiveness of these walls and proposing legislative changes to Congress.

We also need to address the demands of emergency services in relationship to the hospitals. Wireless systems will be needed to communicate with emergency department personnel. As technologies advance so will the needs of having a business class high-speed service to

communicate. A system that address all needs and is technology neutral will have to be developed to meet rural America needs. ARCC has developed such a system based around wireless broadband service tied to anchor institutions such as Clarion Hospital. Unfortunately, current Universal Service Fund policies prevent effective leveraging of health care funds to support the deployment of this system.

B. Provisions Applicable to Initial Application for Funding

7. Shared Use

68. We recognize that there may be cost-savings and other benefits from allowing community users to participate in infrastructure projects funded by the health infrastructure program. However, we seek to ensure that the health infrastructure program is not indirectly subsidizing unauthorized uses, and that funds are not wasted. Rules governing the sharing of this subsidized infrastructure are necessary to prevent waste, fraud and abuse, and to control the size of the disbursements, particularly given the annual limits on the health infrastructure program.

COMMENT - One of the strengths of the Recovery Act funding is that this funding required that project proposals include building out the infrastructure to serve anchor institutions as well as the private sector across the community or region. This holistic approach to addressing broadband service from a community perspective breaks through the artificial silos that disaggregate sectors of a community, and should more effectively and economically leverage public dollars to drive the provision of broadband service than the approach currently used by FCC to fund the provision of broadband service for healthcare, or for that matter, schools and libraries. FCC funding could more effectively leverage private investment in broadband infrastructure if the FCC broadband program funds could be used in combination with other public and private dollars to build infrastructure across a in a non-discriminatory manner.

B. Provisions Applicable to Initial Application for Funding

7. Shared Use

78. *Additional Capacity for Community Use.* In addition to the proposed rules above (regarding excess capacity for health care purposes), we seek comment on whether we should encourage, community (not for health care purposes):

- Additional capacity for use by schools and libraries;
- Additional capacity for use by governmental entities (state and local); and
- Additional capacity for use by other entities in the community, such as local non-profits, community or civic organizations, low-income residents, local businesses, anchor institutions and other residents.

COMMENT – The Commission should encourage, if not require, any healthcare network projects in unserved or underserved communities (communities with less than four (4) broadband service providers) to be built with excess capacity for use by any entity or individual in the community. Communities are unserved or underserved because they lack the population density to support the level of return on investment necessary to attract private investment. Supporting the build out of multiple private or public sector dedicated broadband networks disaggregates broadband demand in communities that lack the population density to support at least two (2) robust networks is wasteful use of scarce public funds.

Scarce public funds could be more effectively used to support the build-out of one or possibly two technology neutral (fiber, copper, wireless), robust broadband networks that can carry digital

traffic for all sectors of a community would be a more effective means of using public funds to leverage private investment.

The ownership and operation of these networks should be separate from the delivery of services with the private sector delivering services from a common network infrastructure. This separation of the network and service delivery would enable multiple private sector entities to offer broadband services across the community.

Encouraging additional capacity for community use under the scenario described above would provide the platform in unserved and underserved for attaining six goals detailed in the National Broadband Plan.

B. Provisions Applicable to Initial Application for Funding

7. Shared Use

79. *Priority Preferences for Projects that Include Additional Capacity for Community Use.* For each of the above types of additional capacity for community use listed in paragraph 78, we seek comments on whether projects funded by the health infrastructure program should include, restrict, or allow these types of joint or shared projects. We also invite comment on priority preference and other issues. For example:

- If we cap the number of projects per year, or if the number of projects per year under the health infrastructure program exceeds the proposed \$100 million funding cap, should we give special prioritization treatment to projects that plan to allow use of excess capacity by schools and libraries that are otherwise eligible for universal service funding?

COMMENT – Prioritization should be given to projects that plan to allow the use of excess capacity by schools and libraries, and the rules should provide provisions for using federal funds from programs that support the provision of broadband service to schools and libraries. Coordinating the building and utilization of one network to provide advanced broadband services for healthcare, schools and libraries should result in a more robust network and more effectively utilize public funds to leverage private investment.

- Should we give priority to projects that allow use of excess capacity by state or local government (including government offices, police, fire departments and Emergency Medical Services)?

COMMENT – Projects that allow the use of excess capacity by state or local governments should be given priority. Addressing the broadband capacity needs of multiple publicly funded through a common network infrastructure project would enable the collaborators to bring together a combination of federal, state, and local public funds to more effectively leverage private investment in the project.

- Should other community use be allowed or restricted?

COMMENT – Other community use should be allowed and encouraged, especially in unserved and underserved communities. The practice of funding single use networks for healthcare, education, or any other sector in a community, effectively cherry picks the anchor institutions in a community. This cherry picking of anchor institutions through multiple dedicated networks decreases the ability of a broadband service provider to build and operate a network to provide service to non-public entities in unserved and underserved communities.

Subsidizing the deployment of dedicated networks with public funds in unserved and underserved communities should be discouraged. This current practice will continue to hinder last mile broadband development in rural America. Systems need to be built to allow for integration of businesses and other anchor institutions with households. This is essential for rural America if we want to develop telehealth systems in these locations. These are the locations that will be served well because of distances and road systems preventing patients to be transported to healthcare facilities. For many health issues time is critical.

Also recruiting physicians in rural America means that young doctor's such as radiologist will want to be able to perform review of patient status on-line at home. Again this will save time as well as save money on transportation costs.

B. Provisions Applicable to Initial Application for Funding

7. Shared Use

81. Should we require that additional capacity for community use be physically separated from the dedicated capacity reserved for the health care network? If so, we seek comment on how such separation may be effectuated. For example, should we require capacity to be separated by fiber strand, channel, wavelength, or by some other method?

COMMENT – No. Carrier class networks are capable of using Layer 2 separation to ensure data security and integrity.

B. Provisions Applicable to Initial Application for Funding

7. Shared Use

82. Commenter should address how permitting joint projects that include additional capacity for community use would be consistent with the resale restrictions contained in section 254(h)(3) of the Act. 142 The use of such additional capacity by the community would not violate the restrictions against sale, resale or other transfer contained in section 254(h)(3) of the Act because, in such instances, health care providers would retain ownership of the additional capacity, and payments to the network for the use of such additional capacity would be retained to sustain the network. We seek comment on this analysis.

COMMENT – Unfortunately, we recognize that the resale restrictions contained in section 254(h)(3) of the Telecommunications Act and FCC rules written to support that law severely limits the ability to resell broadband service from a healthcare network subsidized by FFC grants. Furthermore provisions in the act relating to the funding of dedicated networks for schools and libraries have similar provisions that limit ability to broadband services from those networks. The law and these rules have resulted in the deployment of multiple networks that provide necessary service to the targeted entities (hospitals and healthcare providers, schools and libraries, public safety networks) in some communities while these same entities in other communities have not been able package the funding to build these dedicated networks.

We believe scarce public funds would be better utilized to support carrier class, network neutral projects in communities that are unserved or underserved (Communities with less than 3 or 4 broadband service providers). The network infrastructure should be owned and operated by an entity that does not deliver services. Or if the network owner also delivers services the owner should be required to operate the network infrastructure as an open access network ensuring competing private sector entities have access to the network and are able to deliver competing

services. This arrangement effectively aggregates demand to these robust networks that are capable of delivering broadband services to all segments of the community.

We recommend that the Commission propose legislative changes to the Congress that will enable the Commission to allow for multiple use, non-dedicated networks in communities that are unserved or underserved.

PROPOSED LEGISLATIVE CHANGE:

(3) Terms and conditions: Telecommunications services and network capacity provided to a public institutional telecommunications user under this subsection may not be sold, resold, or otherwise transferred by such user in consideration for money or any other thing of value ***except under the auspices of a non-profit corporation developed to provide telecommunications services to regional users.***

A. Eligible Services

1. Recurring Costs

95. Access to advanced telecommunications and information services for health care delivery is provided in a variety of ways today, and is not limited to the public Internet and the features typically provided by Internet service providers. For example, due to privacy laws and electronic health care record requirements, secure transmission of health IT data needs to occur over a private dedicated connection between health care providers. In addition, as evidenced in the networks being funded under the Pilot Program, many health care providers rely on private wide area networks to provide Health IT and access applications for the delivery of health care to rural areas. Limiting funding to transmission over the public Internet therefore may inhibit access to health IT necessary to improve health care delivery. The low utilization rate of the existing internet access program suggests the narrow definition of Internet Access does not align with the needs of health care practitioners.

COMMENT - Common networks engineered to take advantage of Layer 2 separation are capable of ensuring data security and integrity. Such steps would enable leveraging of USF health care funds to the benefit of the entire community while ensuring the security of health information and EMR.