

**FCC Pilot Program Quarterly Report  
October-December 2009  
Erlanger Health System**

**1. Project Contract and Coordination Information**

a.b. Identify the project leader(s) and respective business affiliation

Douglas Fisher (Project Coordinator)  
VP Government & Community Affairs  
Erlanger Health System  
975 East Third Street  
Chattanooga TN 37403  
423-778-9642  
douglas.fisher@erlanger.org

Hale Booth (Associate Project Coordinator)  
Executive Vice President  
BrightBridge (formally Southeast Development Corporation)  
PO Box 871  
Chattanooga, TN 37401  
423-667-2077  
hbooth@BrightBridgeInc.org  
Fax 423-424-4262

c. Responsible organization

Erlanger Health System  
975 East Third Street  
Chattanooga TN 37403

d. Coordination throughout the state or region.

Erlanger Health System management continues periodic informal discussions with other health care providers across the region regarding structuring the system to meet specific needs of the individual health care providers. In addition, Erlanger staff members have periodic communication with another pilot grant recipient in Tennessee, to coordinate the projects and thus insure there is no overlap or duplication of service.

**2. Identify all health care facilities included in the network.**

Network development has resulted in the investment of considerable time in defining and planning services, identifying and securing funding for necessary equipment and defining business relationships. Discussions continue with partners, potential new partners as well as future partners. Erlanger Health System has identified new resources and worked to structure key lead services such as telestroke care that will be initially delivered via telemedicine. Strategies have been developed and additional funding is being sought to reach beyond the initial FCC funded fiber network with additional non-FCC funded access to even more remote rural hospitals. Rapid growth of the rural healthcare network is very important to help scale the telemedicine program to insure quicker business success and economic viability. Funding has been requested from multiple sources to assist with costs of this expansion. For the initial core FCC funded rural fiber healthcare network the facilities listed below are primarily the same as those proposed in the application, with the previously reported deletion of Woods Memorial Hospital in McMinn County which has been sold to a private group and changed from a non-profit to a for profit hospital, since the application was originally submitted. Hutcheson Medical Center, a non-profit hospital, in Fort Oglethorpe Georgia is being invited to join the initial FCC funded network, because of its location and importance to care in our region and the fact that it can be incorporated at little additional expense.

|  |                                   |
|--|-----------------------------------|
| Copper Basin Medical Center<br>144 Medical Center Drive<br>Copperhill TN 37317<br>RUCA Code 10<br>Census tract 9504<br>Contact Ray Ford, CEO, 423-496-5511 | Public,<br>non-profit<br>eligible |
| Erlanger Bledsoe<br>128 Wheeler Town Road<br>Pikeville, TN 37367<br>RUCA Code 10<br>Census Tract 9531<br>Contact Douglas Fisher, 423-778-9642              | Public<br>non-profit<br>eligible  |
| Erlanger Baroness<br>975 East Third Street<br>Chattanooga, TN 37403<br>RUCA Code 1<br>Census tract 4<br>Contact Douglas Fisher 423-778-9642                | Public<br>non-profit<br>eligible  |

|  |  |
|--|--|
| <p>Erlanger North<br/> 632 Morrison Springs Road<br/> Red Bank TN 36415<br/> RUCA Code 1<br/> Census Tract 109<br/> Contact Douglas Fisher 423-778-9642</p>                          | <p>Public<br/> non-profit<br/> eligible</p>  |
| <p>Hutcheson Medical Center<br/> 100 Gross Crescent Circle<br/> Fort Oglethorpe, GA 30742<br/> RUCA Code 1<br/> Census tract 307<br/> Contact 706-858-2000</p>                       | <p>Public<br/> non-profit<br/> eligible</p>  |
| <p>North Valley Medical Center<br/> 723 Rankin Avenue (US 127)<br/> Dunlap TN<br/> RUCA Code 10<br/> Census Tract 601<br/> Contact: Bill Harmon, 423-949-5100</p>                    | <p>Private<br/> For-profit<br/> eligible<br/> (Dedicated<br/> emergency<br/> department)</p> |
| <p>Rhea Medical Center<br/> 9400 Rhea County Highway<br/> Dayton TN 37321<br/> RUCA Code 8<br/> Census tract 9752<br/> Contact; Ken Crooms CEO, 423-775-1121</p>                     | <p>Public<br/> non-profit<br/> eligible</p>  |
| <p>Erlanger Womans/Erlanger East<br/> 1755 Gunbarrell Rd<br/> Chattanooga, TN 37421<br/> RUCA Code 1<br/> Census Tract 114.41<br/> Contact; Douglas Fisher 423-778-9642</p>          | <p>Public<br/> non-profit<br/> eligible</p>  |
| <p>Murphy Medical Center<br/> 4130 U.S. Highway 64, East<br/> Murphy North Carolina 28906<br/> RUCA Code 9<br/> Census tract 9906<br/> Contact: Mike Stevenson CEO, 828-835-7502</p> | <p>Public<br/> non-profit<br/> eligible</p>  |

**3. Network Narrative:**

The competitive bidding process has not been initiated, so this section is not applicable.

**4. List of connected health care providers.**

Not applicable at this time.

**5. Identify the following non-recurring and recurring costs, where applicable show both as budgeted and actual incurred for the applicable quarter and funding year to date.**

|   | Budgeted  | incurred |
|---|-----------|----------|
| a. Network design                       | 55,000    | 0        |
| b. Network equipment                    | 361,696   | 0        |
| c. Infrastructure deployment            |           |          |
| i. Engineering                          | 35,000    | 0        |
| ii Construction                         | 2,023,304 | 0        |
| d. Internet2, NLR                       | 0         | 0        |
| e. Leased facilities                    | 0         | 0        |
| f. Network management, maintenance, O&M | 0         | 0        |
| g. other                                | 111,600   | 0        |
| Total                                   | 2,586,600 | 0        |

While the budget total remains the same as the submitted Pilot project application, these budgeted line item expenses were changed to reflect an expected decrease in construction because of the deletion of Woods Hospital in McMinn County and the addition of network equipment expense by Erlanger Health System. New funding developments which will be discussed later in this quarterly report will also extend the reach of FCC construction dollars and will likely require future budget adjustments. Formal approval of these line item changes will be requested soon.

**6. Describe how costs have been apportioned and the sources of the funds to pay them.**

- a. Explain how costs are identified, allocated among and apportioned to both eligible and ineligible network participants.

Project staff are currently developing a business plan to identify reasonable system costs and equitable methods to apportion these costs to participants. The network will initially only serve eligible participants. Expansion plans have been developed and funding applications will continue to be submitted to serve a broader range of rural hospitals, some of which are defined as ineligible participants for the FCC funded network. When non-FCC funding requests for this health care network expansion are successful and these additional rural hospitals become a part of the system, this issue of apportioning costs will be addressed with the

funding agencies. EHS and project partners have also applied for additional funding opportunities available through the ARRA “stimulus bill” for possible use with the telemedicine network. At the close of the last reporting quarter, major “stimulus” funding was announced by DOE for one of EHS’s existing service providers which will positively benefit the rural healthcare network by paying for a portion of the need fiber which the healthcare network will ride.

- b. Describe the source of funds from:
  - i. Eligible pilot program network participants.

The initial matching funds contribution for assistance in network construction from the local non-profit Electric Power Board of Chattanooga (EPB) was considered ineligible by the FCC Order issued on November 19, 2007. This complicated things. Potential alternatives have been considered and pursued as sources of local matching funds. Some of these alternatives have been discussed with USAC staff and it was determined that these potential alternative sources of matching funds were not eligible, even though they were real program costs that must be incurred by Erlanger Health System. As a result, in late September of this year the Board of Directors of BrightBridge Inc. (a non-profit economic development corporation assisting EHS with this project) has approved the potential use of Direct Congressional Appropriation funds previously appropriated to BrightBridge Inc. for use in eligible construction activity to complete matching funding of the FCC project. BrightBridge staff are preparing necessary environmental review records and other documents needed to secure the concurrence of appropriate HUD staff which have authority over these Congressionally Appropriated funds. This work should be completed during the first quarter of calendar year 2010 (next quarter).

Erlanger Health System has also received \$352,000 in additional 2008 project grant funds from USDA Rural Development for non FCC-eligible network equipment and in partnership with Meigs County government has re-applied in October 2009 for \$393,500 in FY 2010 Appalachian Regional Commission funding to expand the network fiber to a rural public primary care center and two rural public health centers.

One of Erlanger Health System’s existing service providers, the non-profit Electric Power Board of Chattanooga (EPB) received notice from DOE on October 27th that EPB’s grant application for SmartGrid funding (which was prepared by BrightBridge Inc. and coordinated with the EHS rural healthcare network plans) has been selected for \$111,567,606 in DOE funding to match a local commitment of

\$115,139,956. A significant portion of this new DOE funding will extend high speed fiber wall to wall across the multi-county service area of the Electric Power Board. This is a major project development for the Erlanger Rural Health Care Fiber Network because of this ARRA funding to EPB, it will create significant leverage for the FCC funded fiber network. Now there will be little if any FCC funded fiber required to be constructed in the large EPB service area as the healthcare network data can “ride” the EPB fiber. This will allow the FCC funded fiber to reach further into rural areas and help position the rural healthcare fiber network for future expansion.

These very positive developments will likely cost the project schedule a little more time but are significantly benefiting the capital financial participation by eligible network participants and will likely reduce participant cost to an operating and maintenance fee which is being established.

Erlanger and the various project partners are also moving toward a non-profit partnership for ownership, operation and maintenance of the network which results in the partners bringing matching cash equity to the project as well as other needed investments. The partnership under discussion would be Erlanger Health System, BrightBridge Inc. a SBA certified non-profit economic development corporation and likely some area public power distributors who have the staff and physical capability needed to maintain the fiber network. Structural arrangements for this partnership are being developed and approval of this structure will be requested from the grantee in the next quarter.

ii. Ineligible network participants.

Not applicable (at this time).

c. Show contributions from all other sources

i. Identify source of financial support and anticipated revenues paying for costs not covered by the fund and by pilot program participants.

The FCC grant award for the Rural Healthcare Fiber Network has enabled the project to leverage an ever growing investment of federal and local funds to assist with costs not covered by the FCC grant.

Erlanger Health System is incurring costs for planning and project administration assistance. These costs are not covered by the grant and are currently being paid by Erlanger Health System. Grant eligible

costs are not being incurred at this time as system planning is being completed. However, the need for operating equipment to interface with the FCC funded fiber network is an essential component not funded by the FCC grant. Erlanger Health System successfully applied for telemedicine equipment funding in April 2008 from the USDA Rural Development Distance Learning Telemedicine program. This funding request was for non-FCC eligible network equipment to be located in rural Copper Basin Medical Center in Copperhill, Rhea County Medical Center in Dayton, Erlanger Bledsoe in Pikeville, North Valley Medical Center in Dunlap and Erlanger Baroness in Chattanooga. In September 2008 Erlanger Health System was notified that USDA was awarding Erlanger Health System \$352,000 to fund this needed equipment for the pilot program.

One of the key needs that emerged out of initial network planning with Copper Basin Medical Center involved tele-radiology. They are the only hospital in the first phase of the pilot project without a PACS or digital imaging system, from which important diagnostic imagery can be transmitted over the FCC funded network. A commitment of federal funding through the Appalachian Regional Commission was secured to assist with the purchase of a portion (fifty percent) of the PACS system, for Copper Basin Medical Center. The balance of funding for this system is included in the previously mentioned USDA Rural Development Distance Learning Telemedicine grant awarded to Erlanger by the USDA in September 2008. The PACS equipment was received by that hospital during the summer of 2009 and is now in use.

On September 30, 2009, Erlanger Health System in partnership with Meigs County government, re-submitted a grant request through the State of Tennessee to the Appalachian Regional Commission for \$393,500 in ARC funds to expand the planned pilot network. If awarded, these proposed funds will pay for additional fiber construction and telemedicine equipment needed to serve a public primary care center in Meigs County Tennessee and two public health department facilities in McMinn and Meigs County Tennessee. Public health departments in the Erlanger catchment area have expressed an interest in participating in the network and with minor modifications, the majority of rural health department locations can be accessed at little if any extra project expense. The Meigs and McMinn County health departments are exceptions, as they are not easily accessible and will require substantial additional fiber to serve these locations. Meigs County's health department is the only facility in this rural medically underserved county which provides primary health care and the ability to deliver telemedicine services to this remote facility would greatly improve access to tertiary care. This ARC grant request was initially turned down in June 2009 due to lack of ARC grant funds, and has

been revised, restructured and resubmitted for further funding consideration in September 2009. A funding decision on this application is expected in late spring of 2010.

In March of 2009, Erlanger Health System submitted an initial grant application to USDA Rural Development's Distance Learning and Telemedicine program for \$385,000. This application was not selected for funding in the fall, but will be restructured and resubmitted for additional consideration in early 2010. The intent of this funding initiative is to pay for equipment needed to install telemedicine stations at twelve predominantly rural hospitals across Erlanger's multi-state tertiary care service area. One of these hospitals, Murphy Medical Center is part of the initial group of hospitals targeted for service in the FCC application. The remaining eleven hospitals in the proposal represent planned future expansion of the service locations. The new hospital locations proposed for telemedicine stations through this initial grant request were: Woods Memorial Hospital in rural Etowah Tennessee; Stones River Medical Center in rural McMinnville Tennessee; Stones River Medical Center in rural Woodbury Tennessee; River Park Medical Center in rural McMinnville Tennessee, Cumberland Medical Center in rural Crossville Tennessee; Grandview Medical Center in rural Jasper Tennessee; North Georgia Medical Center in rural Ellijay Georgia; Hamilton Medical Center in Dalton Georgia; Floyd Medical Center in Rome Georgia; Fannin Regional Hospital in rural Blue Ridge Georgia; Hiawasse Medical Center in rural Hiawasse Georgia; Murphy Medical Center in rural Murphy North Carolina and DeKalb Medical center in rural Fort Payne Alabama. USDA review and scoring of the application did not rate it high enough to secure funding in the September grant announcements. This initiative is very important to scaling the size of the telemedicine program to make it successful and EHS will continue to seek funding alternatives until funds are awarded. Erlanger staff are currently working with USDA to review and revise the previous proposal and make modifications before re-submitting the application in the next competition in early calendar year 2010.

In addition staff had developed and submitted a USDA DLT application for Murphy Medical Center located in rural western North Carolina during the spring of 2009. The proposed grant funds were designated for the purchase of telemedicine equipment to link all local primary care facilities to the Murphy Medical Center and through the FCC funded Erlanger Health System network to specialists throughout the region. This application was not funded by USDA and staff have not yet determined if it should be re-submitted in the next grant competition.

The most recent positive major investment occurred as the beginning of this reporting quarter. As previously mentioned, project administrative staff also worked with the Electric Power Board of Chattanooga (EPB) to prepare, write and submit an ARRA SmartGrid Investment Grant Application to the Department of Energy. This grant application to the DOE Office of Electricity Delivery & Energy Reliability, while an electrical system application, included extensive installation of a high speed fiber communications network to all customers and areas of the seven-county EPB service area. The majority of these areas to be served by the grant are outside of the urban core of Chattanooga and are characterized as very rural. DOE announced \$111,567,606 in grant funding for the project on October 27, 2009. These grant funds will match \$115,139,956 in local funds. While not a direct part of the FCC funded project. This will significantly leverage FCC funding as it should pay for construction and development of some of the necessary fiber that had been previously planned to be installed with FCC project funds. This in turn will allow for additional construction contingency or additional fiber construction to possibly more remote locations for the FCC funded project.

- ii. Identify the respective amounts and remaining time for such assistance.

Raising eligible matching funds in the current economic environment has been a time consuming task which has delayed the project and will likely require a time extension to overcome.

The total FCC project budget submitted is \$2,586,600. The source of funding is \$2,198,610 from the FCC pilot grant and \$387,990 in local matching funds which are currently planned to come from a Direct Congressional Appropriation grant to BrightBridge Inc. Erlanger Health System is investing hundreds of thousands of dollars of local funds designated for purchase of network equipment necessary to manage and operate the fiber network. A large portion of this Erlanger investment was budgeted for network equipment in previous fiscal year EHS budgets. Additional Erlanger funds were budgeted in the 2009 fiscal year. Erlanger has initially planned to use this equipment purchase as their match for the FCC grant but was advised that some of the equipment needed to implement the network were not considered as eligible for match by the FCC, so this continues to be a work in progress.

The current financial strategy is that BrightBridge Inc. a non-profit economic development corporation that has assisted EHS throughout

the project, now is planning to invest the funds needed to match the FCC grant. As previously mentioned, this would involve a potential new structure for ownership, operation and maintenance of the network.

In late September 2009 the BrightBridge Board of Directors met and approved a resolution authorizing the use of Congressional Appropriation HUD EDI funds available to BrightBridge, as matching funds for the FCC project. HUD as the administrative agency for these funds must now approve the proposed use of these funds for construction of a portion of the rural healthcare fiber network in an eligible area. Staff are preparing necessary environmental documents and project amendments to secure that approval to match the FCC funds. A final decision on project approval by HUD is expected in the near future.

Regarding the FCC ineligible equipment expenses discussed in 5 c. i. above, the Copper Basin Medical Center was awarded an Appalachian Regional Commission (ARC) grant for \$260,884, for equipment funding. A large portion of this 50 percent matching grant was used to purchase a PACS electronic imaging system which will provide medical digital images for transmittal over the FCC Pilot network to specialists at other hospitals. Other portions of this ARC grant have already been invested in unrelated equipment and the remainder ARC funds budgeted for the PACS system was drawn down during the previous quarter and used to pay for 50 percent of the new PACS system.

Erlanger Health System has also been awarded \$352,000 in FY 2008 grant funding through USDA Rural Development Distance Learning and Telemedicine program. The funds are being used to purchase imaging equipment for rural hospitals in the network to allow them to use the FCC funded fiber network. Equipment being purchased from this grant include the remaining 50 percent of funding for the PACS system for Copper Basin Medical Center, remote telemedicine stations for deployment at rural hospitals and two portable video conferencing stations at Erlanger Baroness which will be located in the children's hospital and the Level 1 Trauma Center. Equipment vendors for the Rural Development funds have been selected and Erlanger Health System is currently expending and drawing down these USDA funds.

- d. Explain how the selected participant's minimum 15 percent contribution is helping to achieve both the selected participant's identified goals and objectives and the overarching goals of the pilot program.

Erlanger Health System has planned the deployment of the FCC Rural Fiber Network from the inside of their health system out to the rural partners. As part of this systemic process, Erlanger has identified necessary equipment capacity needs for the network that can grow with the network over time. Erlanger has budgeted funds for this equipment and had hoped to use these equipment expenses as part of the project local match provided by Erlanger. However based on feedback from USAC, Erlanger did not request consideration of these equipment expenditures as part of the 15 percent match. Equipment expenditure is a significant investment in the future of the network by Erlanger Health System and it comes at an increasingly difficult time in the national economic cycle when Erlanger continues to provide approximately \$85,000,000 per year in uncompensated health care to the community. EHS like many other public health care providers is going through a continuing period of financial austerity. This environment has resulted in the need to leverage other funds that can help further the overarching goal of creating a telemedicine network to provide effective targeted tertiary care across the large health catchment area which Erlanger serves. This telemedicine investment along with the FCC Pilot grant supports Erlanger Health System's role as a regional tertiary care provider and a strong partner for the growth of healthcare services in rural communities. It also positions EHS to grow their network into a component of a future national healthcare fiber network.

**7. Identify any technical or non-technical requirements or procedures necessary for ineligible entities to connect to the participant's network.**

At this time, no plans have been developed for ineligible entities to connect directly to the network, so this question is not currently applicable.

Erlanger Health System is not aware of any issues around ineligible entities i.e. medical practices and doctor groups interfacing through Erlanger's hub/network terminus with data carried on the pilot network. This is important to the long term success of the system as the local public Electric Power Board (EPB) of Chattanooga is in the process of investing approximately \$350,000,000 to extend high speed fiber ("last mile-fiber to the home") to all of their 170,000 customers throughout their 600 square mile urban/rural service area which is where the vast majority of tertiary care medical specialists are located (both offices and homes). The ability of these specialists to link to the hub or terminus of the health care network at Erlanger through EPB's network is vital to the long term success of the project and critical to the ability of the network to respond effectively in a crisis or medical emergency.

We are assuming that if the FCC network terminates at the participating hospitals, then the participating hospitals can send various data to various other local

locations or medical service providers utilizing other secure but non-FCC funded networks such as local area networks (LAN's), secure wireless networks, private networks, etc. This is a very important assumption that will be critical to the success of our business model.

**8. Provide an update on the project management plan, detailing:**

- a. The project's current leadership and management structure and any changes to the management structure since the last data report.

Current leadership for the project continues to be provided by Douglas Fisher, Erlanger Vice President for Government and Community Affairs (Project Coordinator), and Hale Booth, Executive Vice President, BrightBridge Inc. (Associate Project Coordinator).

- b. In the first quarterly report, the selected applicant should provide a detailed project plan and schedule. The schedule must provide a list of key project deliverables or tasks, and their anticipated completion dates. Among the deliverables, participants must indicate the dates when each health care provider site is expected to be connected to the network and operational. Subsequent quarterly reports should identify which project deliverables, scheduled for the previous quarter, were met, and which were not met. In the event a project deliverable is not achieved, or the work and deliverables deviate from the work plan, the selected participant must provide an explanation.

The Erlanger Health System Rural Healthcare Network has faced delays in implementing the project schedule due to difficulties that have been encountered in raising necessary eligible matching funds and raising necessary equipment funding that is needed by end user hospitals to make effective use of the network. Now with substantial equipment funding in place and matching funds coming into place, Erlanger is positioned to move more effectively into implementation of the initial stage of the project. The attached project schedule illustrates the original proposed project date for key milestones and the current revised projected milestone dates.

|   | Original<br>Date | Revised<br>Date |
|---|------------------|-----------------|
| <b>STRUCTURE</b>                                |                  |                 |
| Documentation of commitment of network partners | 10/15/08         | 3/15/09         |

## NETWORK DESIGN

(NOTE: EHS is working on a joint venture which may eliminate the need to expend FCC funds on network design and competitive bidding of this step)

|                                       |          |          |
|---------------------------------------|----------|----------|
| Competitive bidding of network design | 11/15/08 | 04/15/10 |
| Review, recommendation and bid award  | 1/15/09  | 05/30/10 |

## NETWORK BRIDGE EQUIPMENT (Non-FCC)

|   |         |         |
|---|---------|---------|
| Bid specifications for video bridge/network hub equipment | 2/15/09 | 2/15/10 |
| Competitive bidding of video bridge/network hub equipt.   | 3/15/09 | 2/15/10 |
| Review, recommendation and bid award                      | 3/30/09 | 3/15/10 |
| Installation of equipment                                 | 9/15/09 | 6/15/10 |

## CONSTRUCTION

Environmental compliance and rights of way documentation with electric cooperatives, power boards, and other existing partners

|  |          |          |
|--|----------|----------|
|  | 6/15/09  | 08/15/10 |
| Bid specification document                                 | 6/15/09  | 08/30/10 |
| Review and approvals of bid documents                      | 7/30/09  | 09/15/10 |
| Competitive bidding of fiber construction and installation | 8/15/09  | 09/30/10 |
| Review, recommendation and bid award(s) for construction   | 9/30/09  | 11/30/10 |
| Preconstruction conference                                 | 10/15/09 | 12/15/10 |
| Notices of start of construction                           | 10/15/09 | 12/15/10 |
| Construction & inspection completion                       | 8/15/10  | 9/15/11  |
| Construction completion and network testing                | 9/15/10  | 9/15/11  |

## NON-FCC FUNDED EQUIPMENT

Preparation of bid specifications for non-FCC project equipment

|  |          |          |
|--|----------|----------|
|  | 10/30/08 | 3/30/09  |
| Procurement of non-FCC project equipment<br>(Some of this procurement has been completed)  | 11/30/08 | 02/30/10 |
| Review, recommendation and bid awards<br>(Some of this has already been completed)   | 01/30/09 | 12/15/09 |
| Acquisition and installation of non-FCC project<br>equipment at health care provider sites<br>(Some of this is already complete) | 06/30/09 | 3/15/10  |
| Completion of testing of equipment<br>(Some of this is already complete)   | 06/30/09 | 4/15/10  |

## PROJECT CLOSEOUT

|  |          |          |
|--|----------|----------|
| System completed and fully operational | 9/15/10  | 9/30/11  |
| Project closeout                       | 10/15/10 | 10/01/11 |
| Reporting                              | on-going | on-going |

*Schedule for connecting each site to the network and operational:*

All health care provider sites will be connected to the planned network and operational by 9/30/11 many will be connected well before this date.

Some sites will be connected and operational sooner. However, since this project involves the installation of fiber over miles of routes dictating a precise schedule for service by site will, based upon prior experience, result in a higher construction cost in competitive bidding. Therefore the timing and priority of site connections will be negotiated after bid award based on site needs at that time and contractor mobilization issues.

*Schedule Changes:*

Time is tight to meet current USAC and FCC schedules for funding commitments. If a project extension is available from the grantor it will help the project to be successful. The current time line can be achieved and we are committed to accomplishing that. This schedule reflects the original schedule submitted and the current revised schedule which is updated each quarter. It has been necessary to extend the schedule as Erlanger Health System has needed more time to raise additional needed matching funds along with raising other funds for non-FCC eligible expenses while also planning how healthcare services will be delivered over the network. EHS has also been investing considerable time in developing a basic strategy for the sustainability of the network to accommodate concerns for maintaining the economic viability of the network over time while properly observing USAC and FCC programmatic concerns. The strategy for delivery of sustainable services over the network has also demonstrated the importance of scaling the number of “partner” hospitals on the network. This need for more partner primary health care providers has in turn lead to additional local investment by Erlanger and additional grant proposal development for funding equipment at these potential additional sites. This has taken more time than originally estimated, while also impacting the facility planning process. The additional care and attention to critical detail will produce a more sustainable and viable telemedicine network over time.

Some sites selected for the USDA funded telemedicine equipment will initially be served by existing lower capacity internet connections and will provide an excellent beta evaluation for the ultimate system because not only will equipment be thoroughly vetted, processes and procedures will be tested and expanded if needed.

**9. Provide detail on whether network is or will become self sustaining. Selected participants should provide an explanation of how network is self sustaining.**

To be successfully sustained, a regional telemedicine network must meet the clinical, educational and economic needs of all participants. Erlanger Health System views the project as an opportunity to not only partner with member

hospitals, but perhaps more importantly reach out to physicians and distant communities as well. We are utilizing an extensive collaborative needs assessment to ensure that what we offer and communicate to our members is precisely what is needed to extend care access and offer programs not yet available because of sparse or dispersed populations. We continue exploring opportunities to partner with target community health and wellness agencies to pursue both State and Federal funds for initiatives that target maternal/fetal health, children's health, and improvement of critical disease states such as diabetes, stroke, obesity, cancer and COPD. Working with the agencies, we are also developing community-based health initiatives supported by the increased access to specialists and educational opportunities provided by telemedicine.

Sustainability and long term growth will be enhanced by the creation of an ongoing flow of data between network sites which will quickly demonstrate the benefit to physicians, patients and providers. The initial program focus is centered on both stroke and trauma care which are specialty services in which Erlanger is a broadly recognized leader. These are also services that are significant positive revenue generators for Erlanger and which can justify some subsidization of the telemedicine network by EHS if that becomes necessary.

Erlanger's business plan for the initial phase of telemedicine will focus on development of a regional telestroke network to expand the existing stroke program at Erlanger. The Erlanger Southeast Regional Stroke Center is a recognized national leader in three core areas: clinical care, stroke education and medical research. In March 2009, the national MERCI registry listed Erlanger as the busiest center in the United States in the performance of advanced interventional therapies. In 2007 the center treated approximately 800 stroke patients and by 2008 the number grew to 1,118. The telestroke strategy will focus on the FCC project targeted hospitals and will initially use the USDA funded equipment for patient interface. Erlanger recognizes that telemedicine programs are largely mission driven and rely on downstream revenue generated by capture of new market share as well as grants to assist with start up capital expenses.

The strongest and most effective telemedicine systems typically begin operating in support of key services essential to the health of distant communities. The stroke service is an important business unit for Erlanger Health System due to its high profile in the media as well as its excellent reimbursement, profit, and contribution margin. Erlanger projects a modest but sustainable return of \$211,799 in initial year net income which will help sustain costs of the developing telemedicine network and grow with services over time.

Erlanger will market the planned service using a mix of both internal and external communications initiatives which include community and regional media highlighting stories and initiatives indicating how telemedicine saves time, money and lives. Keeping staff and physicians informed about opportunities in telemedicine is helping create understanding and generating additional local

initiatives on how to use the network for improved and lower cost health care. One emerging local strategy is to develop an effective and innovative demonstration of the use of broadband- to- the- home for remote monitoring of patients to help minimize costly and stressful hospital stays. Additional funding is currently being sought for this initiative.

As the teaching hospital for the University Tennessee College of Medicine Chattanooga (UTCOM), Erlanger is also working with rural hospitals and UTCOM to encourage research initiatives that will leverage benefits of the network and positively impact health care across the region.

Based on data obtained from existing networks, a key focus area for long-term sustainability is to ensure appropriate and timely reimbursement for all services to providers and physicians. The basic premise is simply “no pay, no play”. Our research indicates that most systems begin sustainable operations two to two and one half years after start up. Successful systems closely collaborate, communicate and continually share updated data related to processes required for reimbursement from Medicare, Medicaid and third party payers. Our regions largest general health insurer, Blue Cross Blue Shield of Tennessee is currently exploring the opportunities and advantages of telemedicine and appears to be positioning itself to emerge as a regional leader in negotiating appropriate physician reimbursement for telemedicine services. As a result of these positive developments, we do not anticipate unnecessary problems with this essential element of reimbursement for telemedicine services which is critical to network sustainability. However our start up is not conditioned on achieving this as we intend to earn initial revenue downstream in the patient care cycle by growing market share and by marketing initial excess capacity to help underwrite operational and maintenance costs.

Because the network infrastructure is being developed in phases, we are aggressively attempting to build on our ongoing efforts to acquire grants from state and federal funds, not -for- profit foundations and interested donors.

*Additional Quarterly Report Questions for Item 9 :*

1. Which scenario’s fit your project?

Scenario # 2, Participant owns 100% of dedicated network; Excess bandwidth is owned by participant for current or future use by other network members.

Since we expect our network to continue to grow over time in both connections and content we are planning to run a minimum of 12 to 24 strands of fiber to our rural hospital locations. This will be more fiber than initially needed, but the system is expected to grow into this over time as new health care provider locations are served and new health care services are developed which will grow network traffic. As a result, Erlanger Health System is anticipating leasing some of the excess fiber on an interim basis to generate revenue and services to exclusively fund the

operation and maintenance cost of the rural healthcare fiber network during the early years of operation. Discussions with local non-profit utility systems indicate this is feasible. This is critical to sustaining the network in the early years of operation after the pilot program while network applications and network traffic builds to an expected self sustaining volume. Project staff continues to research other models to determine appropriate ways to charge for products and services that are a function of the network.

#### 2. Source of 15% funding.

Erlanger Health System is bringing a non-profit group together to manage and maintain the actual fiber network. BrightBridge a non-profit regional economic development organization in this partnership is taking steps to provide the 15 percent matching funds. BrightBridge is an SBA certified development corporation that has been involved in the development of EHS's telemedicine network since the beginning. This is the third approach for the matching funds. Bringing together regional partners for the matching funds is essential in these difficult economic times.

#### 3. Commitments from Network Members.

Commitments are being collected at this time. The BrightBridge Board of Directors has passed a corporate resolution regarding the matching funds and their staff are working to put this in place. Verbal commitments have been secured from initial rural hospital network participants. This is currently being documented in Letters of Agency (LOA) which will document participation in the network. There is no plan at this time to put a time frame on participation in the network as the network is planned to be market driven by demand for services with no cost of entry to eligible participants, only cost for on site connectivity and pro-rata share of network operation and maintenance that is not covered by telestroke income and the revenue generated from interim leasing of excess fiber.

#### 4. Sustainability Period: Will you be able to supply plan/budget of at least 10 years.

Erlanger Health System is planning the rural health care fiber network and telemedicine system to be an integral and permanent part of the on-going health care system and not as a temporary pilot project. Given the performance of the national economy over the past year and a half, no value is placed on a 10 year projection but that timeframe can be projected if requested. A two year financial projection from network startup is more realistic and staff are developing two year pro formas on the network now that revenue projections from the telestroke lead have been developed.

5. Budget attached to Sustainability: We are working on a business plan which will include development of network financial projections and a network operation and maintenance budget.

#### 6. Use of the Network by non-eligible entities.

Erlanger is currently planning to link rural eligible non-profit health care providers in the FCC funded rural healthcare fiber network. To expand or scale the telemedicine network and reach other rural hospitals in Erlanger's multi-state health catchment area, Erlanger Health System will continue applying for additional funding from various sources (USDA, ARC, foundations, etc.) for the acquisition of basic telemedicine equipment to be placed in approximately a dozen additional hospitals beyond the original scope of the project. These additional hospitals will be linked to the FCC funded EHS network at various points by other existing broadband providers. Several of these newly proposed rural health care partner hospitals are private for profit and will require the development of a fair share fee schedule to access the network. The general strategy will be to assess a fair share one time initial access fee for joining the network for non-eligible (for –profit health care provider) entities. These entities will also incur their own additional expenses for linkage to the Erlanger network and will share equally in network system operation and maintenance costs with other participants.

Erlanger or a partnership of Erlanger and other non-profits or public entities will own all the fiber constructed with the FCC funds. Erlanger expects the usage of the network to grow substantially over time as new telemedicine health care initiatives and applications are developed and deployed over the secure network. As a result excess bandwidth is planned in initial construction for future use by network members (Scenario # 2). It is anticipated that this initial excess capacity will be leased where possible in the early years for non-health related purposes with all revenues being used to sustain the network. As health care network demand grows over time, excess bandwidth leased at arms length to other parties will be reduced as needed.

#### 7. Management of the Network

Erlanger Health System plans to focus on managing the network content (health care services) and plans through its non-profit partnership to contract with a qualified public non-profit utility(s) to manage and maintain the physical system network. Erlanger will also maintain ownership of telemedicine stations installed at rural hospital locations and will be able to maintain this equipment more cost effectively through vendor service contract(s).

#### 8. Continued RHC Funding:

At this time there are no budget projections derived from participation in the regular Rural Health Care program.

#### 9. State and Federal Funding:

As noted throughout the report, Erlanger Health System has been actively pursuing state and federal funding to add equipment and fiber to the network. This will continue relentlessly until the network is fully developed with service to all hospitals, public primary care centers, and public health departments throughout the multi-state service area of Erlanger Health System. Erlanger Health System has

already secured additional federal funding needed to equip rural hospitals in the initial FCC funded project with interactive telemedicine stations. Funds have been applied for to add a second phase of 12 more hospitals. Initial funding requests for this expansion have not been successful, and Erlanger will consider options for borrowing funds for the additional equipment purchases through USDA or other below market rate sources and amortizing the debt as part of the network expense that is shared with network partners.

As previously mentioned, in late October, one of Erlanger's existing service providers, the Electric Power Board of Chattanooga, received a funding commitment from DOE of slightly over \$111,000,000. This ARRA grant among other accomplishments will assist in the completion of high speed fiber build out throughout the seven-county EPB service area. While not a direct part of our FCC funded rural fiber network, this DOE investment with EPB's matching commitment will tremendously boost our ability to reach outlying areas and provide comprehensive access for our rural hospitals through our network and interface with the EPB network to an extensive range of specialist medical care in the urban service center around Chattanooga.

10. Prepaid Lease Option:

Prepaid lease options will be reviewed prior to project bidding.

**10. Provide detail on how the supported network has advanced telemedicine benefits.**

Erlanger Health System is continuing work on planning the physical and programmatic structure of the network hiring staff and committing hundreds of thousands of local dollars to the effort. Funding of this pilot project and the on-going project planning has catapulted telemedicine to a realistic opportunity in our regional medical community. The FCC grant has generated extensive discussion in the regional medical community on how best to use telemedicine to improve the quality of health care and drive down costs. Also as a direct result of this project one private medical group has already moved to raise foundation funding for delivery of demonstration telemedicine consultations through leased lines to remote rural residents for specialty needs in perinatology. This particular example can provide new access in remote rural communities to specialized services needed to effectively deal with problem pregnancies which result in higher infant mortalities in the network service area. Plans have also been developed for providing stroke consultation services from Erlanger's stroke center to primary health care locations in the region and linking the level 1 trauma center specialists at Erlanger's Baroness Hospital in Chattanooga to the rural hospital emergency rooms for real time consultation and determination of treatment options.

The regional focus on telemedicine has also lead one partner hospital, Murphy Medical Center in Murphy North Carolina to plan the development and seek funding

for a local area telemedicine network which would link all of these primary care practices in three mountainous counties into a small rural health care network that in turn would be linked through Murphy Medical Center to the broad range of tertiary care specialists at Erlanger Health System. Erlanger collaborated closely with Murphy Medical Center in development of that proposal.

Oddly enough, long term major road closures due to landslides have recently become an increasingly common problem in the mountainous tertiary health care service area of Erlanger. Recent major mountain landslides along I-40 and US Highway 64 have simultaneously closed both of these major corridors through the Appalachian Mountains for months (November 2009-at least April 2010). These new transportation disruptions are dramatically reducing access to specialty medical care through some rural hospitals such as the Copper Basin Medical Center, and Murphy Medical Center as Doctors and patients can no longer efficiently travel to and from the Chattanooga area in these impacted rural locations. This sudden interruption in specialty medical care is also having a very negative financial impact on some of the rural hospitals. These adverse and uncontrollable disruptions are generating additional support for deployment of the Rural Healthcare Fiber network which has the capability to significantly limit the adverse health and financial impacts of these sudden and severe transportation dislocations.

Public Health Departments across the service area have also expressed an interest in linking with the network and have been collaborating in seeking additional funding to expand the planned network.

Blue Cross Blue Shield of Tennessee the dominant health insurance company in Tennessee has also begun to study how to encourage preventive care using tools such as telemedicine and they appear to be taking steps that in the future may result in paying for certain telemedicine services.

As circumstances evolve and plans are further developed for the network, more regional opportunities for telemedicine applications will surface and will be reported in future quarterly reports.

**11. Provide detail on how the supported network has complied with HHS and IT initiatives:**

Since the network has not been constructed and is not operational at this time, this is not applicable. However staff involved with the Pilot project have participated in training sessions presented by HHS staff through USAC sponsored training and are continuing to learn more about these initiatives and the opportunities they present.

**12. Explain how the selected participants coordinated in the use of their health care networks with the Department of Health and Human Services (HHS) and, in particular, with its Centers for Disease Control and Prevention (CDC) in instances of national, regional, or local public health emergencies (e.g. pandemics,**

**bioterrorism). In such instances, where feasible, explain how selected participants provided access to their supported networks to HHS, including CDC, and other public health officials.**

Since the network has not been constructed and is not operational at this time, this is not presently applicable.