

26 June, 2013

To: Nelson County Broadband Authority
From: S. Carter
Re: June 27, 2013 Meeting

Transmitted herewith is the agenda for the Authority's meeting on June 27 at 6 p.m. in the second floor board room in the Courthouse in Lovingston.

Briefly, in addition to approval of meeting minutes (included herewith), staff will provide a brief update of the Broadband Project, receive the monthly report of the Network Operation (Blue Ridge Internet Works/ B. Fooks), consider for approval the Authority's FY 14 Budget (included within the agenda with commentary), consider tower access rates, fees and charges and also discuss scheduling an ensuing work session.

With regard to the Fiscal Year 13-14 Budget, it is noted that staff's recommendation is to approve the budget as presented with the understanding that staff will monthly and at minimum on a quarterly basis update the budget based upon current inputs (information) and seek the Authority's approval, as may be then required. The basis of this approach is the difficulty in accurately projecting revenues and expenditures based upon no prior operational history coupled with the further difficulty of projecting the growth and development of the broadband network in its first full year of operation, and, quite possibly beyond (i.e. years one through three based upon the current location of the fiber and tower based network). As such, staff's proposal is to amend the operational budget as the network grows and develops rather than endeavoring to make financial projections that may or may not happen.

On the subject of tower access rates, fees and charges, staff is currently working on a format of discounted rates for WISPs (Wireless Internet Service Providers) based upon information received from the (Virginia) Center for Innovative Technology (per staff's consultation with the Virginia Information Technology Agency) and from information received from companies that construct, own and/or lease communication towers to WISPs and cellular companies (i.e. American Tower, Crown Castle, etc.). This work is currently in process as the information staff is using as a basis of recommending an interim set of discounted tower rates, fees and charges has just been received from the sources noted herein and the information, not unexpectedly, is diverse with multiple considerations which staff is endeavoring to narrow to options based on percentage discounts of the current tower rate charges. Staff's present consideration is that such discounts would be applicable only to WISPs while maintaining the current tower charges for cellular companies (legal input will be received on this consideration) Staff's goal is to complete this work in the afternoon of 6-26 and transmit it to the Authority Board prior to close of business on 6-26.

Lastly, staff will seek input from the Authority on scheduling a work session including those subject areas that are of most interest to the Authority.

Thank you for your consideration. Please advise if you have questions or require additional information for the meeting on June 27.

AGENDA
NELSON COUNTY BROADBAND AUTHORITY
June 27, 2013

**THE MEETING CONVENES AT 6:00 P.M. IN THE
BOARD OF SUPERVISORS ROOM, SECOND FLOOR, COURTHOUSE, LOVINGSTON**

- I. Call to Order**
- II. Public Comments**
- III. Consent Agenda**
 - A. Resolution – R2013-09** Minutes for Approval
- IV. New/Unfinished Business**
 - A.** Broadband Infrastructure Project Update
 - B.** Network Operator Report - Blue Ridge Internetworks
 - C.** NCBA FY14 Budget
 - D.** Tower Access Rates, Fees, and Charges
 - E.** Schedule NCBA Work Session
- V. Other Business (As May Be Presented)**
- VI. Adjournment**

RESOLUTION R2013-09
NELSON COUNTY BROADBAND AUTHORITY
APPROVAL OF MEETING MINUTES
(May 23, 2013)

RESOLVED, by the Nelson County Broadband Authority that the minutes of said Authority's meeting conducted on **May 23, 2013** be and hereby are approved and authorized for entry into the official record of the Broadband Authority's meetings.

Approved: June 27, 2013

Attest: _____, Secretary
Nelson County Broadband Authority

May 23, 2013

Virginia:

AT A REGULAR MEETING of the Nelson County Broadband Authority Board at 6:00 p.m. in the Board of Supervisors Room located on the second floor of the Nelson County Courthouse.

Present: Allen M. Hale, East District
Constance Brennan, Central District
Larry D. Saunders, South District – Vice Chair
Thomas H. Bruguiera, Jr. West District
Stephen A. Carter, County Administrator
Candice W. McGarry, Secretary
Debra K. McCann, Treasurer
Philip D. Payne, IV – County Attorney
Susan Rorrer, Director of Information Systems
Baylor Fooks, Blue Ridge Internetworks (Network Operator)

Absent: Thomas D. Harvey, North District – Chair

I. Call to Order

Mr. Saunders called the meeting to order at 6:05 pm, with four Members present to establish a quorum and Mr. Harvey being absent.

II. Public Comments

1. Baylor Fooks, Blue Ridge Internetworks (BRI)

Mr. Fooks noted that he was speaking as a Service Provider on the network and that he wanted to clarify where the construction fees were going. He explained that they were collecting the construction fees from customers and were passing these through to the NCBA with no mark up. He noted that they were breaking these out separately as compared to other utilities who bill this as a hidden cost. He also noted that BRI has passed on all discounts on to the end users and had not marked up any charges.

2. Harry Baum, Afton

Mr. Baum noted his frustration and stated that his understanding was that the broadband project was supposed to give internet access to residents. He noted that BRI was not bringing on wireless providers and that the Verizon lines that would be used for DSL were not very good and he wanted to know what the benefits of the project were to the average person.

III. Public Hearing – Proposed Revision to Established Rates, Fees, and Charges for Local Access Transport Rates to Service Providers (R2013-07)

Mr. Carter noted that the NCBA had previously authorized a public hearing pursuant to state law to revise the transport rates within the rate structure. He added that the proposed rate structure moved from one based on bandwidth to one based on a tiered structure; that was modeled somewhat after the Rockbridge Authority. He noted that revising these rates should help to get services out to more people.

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He added that the higher end rates were similar to what was in place before and that the proposed rate changes would not be detrimental to the Authority's revenues.

Mr. Saunders then opened the public hearing and PH opened:

1. Clay Stewart, SCS

Mr. Stewart noted that the present tower rates were not economically feasible for his business as he presented in his profit and loss statement presented to the Authority Board in December. He added that he had presented actual tower rates from a couple of towers that were lower in cost and higher up than the one in the valley and the NCBA Rockfish tower was more expensive. He noted that he hoped that he could use the facilities by coming to terms with the NCBA on realistic pricing on the towers. He added that he had no issue with backhaul on the fiber and these rates were reasonable. Mr. Stewart then noted that he wanted people to get services where they cannot be reached now. He noted that RVCC was a customer of his now and would be a relay point and he had installed 38 customers while only 9 fiber customers had been installed. Mr. Stewart concluded by noting that future use of the towers would allow SCS expansion and would add value to his network.

There being no other persons wishing to be recognized, the public hearing was closed.

Ms. Brennan noted that she took issue with the discount related to amortization of the Nonrecurring Charges in the current revision and in the original rate structure. She added that these should not be offered and views them as an unfair subsidy that should be eliminated.

In response to questions, it was noted that in relation to the Tower Access rates, the customer was the service provider. Mr. Carter then explained that the site access fee of \$200 provided for access to the tower and ten square feet within the tower area. Mr. Carter then noted that staff had conferred with several companies on the tower rates and other experts had reviewed them and stated that the tower rates were very attractive including this fee.

Ms. Rorrer further explained that a service provider who would locate at the site would either have their equipment in the NCBA shelter or would use the 10x10 fenced area to set their equipment. She added that if their needs exceeded this, then the fee would be set based on the number of square feet needed within the compound and if there was another need not listed in the rate structure, it would be priced on a case by case basis. She noted that while the rates have addressed the typical options, it was hard to address every individual provider's requirements.

Ms. Brennan reiterated that her main concern was the discounted Nonrecurring Charges and she proposed the consideration of offering wireless service providers an initial discounted rate to be repaid when their customer base was established.

Mr. Hale noted that he concurred with eliminating the Nonrecurring Charges discount. He then noted that it seemed that the towers were in place and were not being used. He added that the previous meeting's minutes indicated that staff would have to do more extensive marketing of the towers. He further stated that the Authority needed to avoid those not using the system to subsidize those who were through taxes and that they needed to provide service to as many people as possible. He noted that the

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proposed rates have that as an objective but it did not seem to be working and they needed to do something to make the towers more marketable. He then added that he suggested doing this by having discussions with the most likely user, Stewart Computer Services. Mr. Hale reiterated that he did not think that the current tower rates worked and that they should be reduced to make it work. He then proposed a 90 day period of reducing rates by 50% for a certain term contract.

Mr. Bruguere noted that he agreed with Mr. Hale in principle; however, the County built the towers and no other company has come along to either use them or build their own and they have a certain value. He added that he was unsure that as far as wireless providers go, if the rates were the same around the state. He added that the grant was a big subsidy to start with and that the County had also put money into it which was a subsidy. He suggested that they take another look at local area rates even though the County had three diverse companies advise staff on the establishment of the rates. He added that maybe the Authority Board ought to take another month before the proposed rates were approved, in order to allow staff to look at others within a 200 mile radius.

Mr. Hale noted that they needed something that worked here in the County and Mr. Bruguere added that he was not keen on giving 90 days for free. Mr. Hale agreed that it should not be free but set a rate that would sell.

Mr. Hale suggested that a work session with staff and anyone else who wanted to talk about this should be held to determine how to make it work. Ms. Brennan suggested getting the Broadband Subcommittee involved.

Mr. Carter then advised Members that the Broadband Subcommittee had originally endorsed the rates. He added that he agreed with taking more time to review the rates; and he reiterated that staff has been told to date that they were good. He added that this did not mean that the rates had to work for Mr. Stewart.

Mr. Saunders noted that the Members have had the rates for a while; however he agreed that a workshop on to how to make this work better would be beneficial. He added that staff and the Authority have worked on this as a starting point and it has been stated that they would keep evaluating them and would potentially lower or raise them in the future.

Ms. Rorrer noted that the tower rates would be based on the lease terms. She added that Members should keep in mind that two things were going on and that staff has addressed the transport rates over the fiber and has refined these to be more attractive. She noted that if the NCBA approved the rate revision resolution it did not mean that they could not consider tower rates and go through the public hearing process again. She added that the rate structure would be an evolving document and that they did not have to have all changes done at one time; and they could approve the changes to the transport rates and then revisit the other rates.

Ms. Rorrer then noted that the local access transport rates were modified in order to keep the monthly cost to customers around \$60; whereas the previous rate was a \$270 per month minimum charge to Service Providers. She added that the proposed rates were based on a different type of structure that was conducive to serving customer; noting that the previous rates were symmetrical which was equivalent to the proposed Tier 2 rates.

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Mr. Bruguere noted that the Tier 1 rates were a significant reduction and were affordable to most people.

Mr. Carter added that the current fees were based on the amount of bandwidth that a company would transport over the network and now the service provider would be providing certain speeds and would be charging him as a customer for this. He added that Mr. Payne had advised that the Authority could amend the rates beyond what was advertised after the public hearing.

Mr. Bruguere suggested that the NCBA adopt the proposed resolution and continue to work on the rates. He added that they could explore more service providers in the next month. Mr. Hale then agreed that they should adopt the proposed local access transport rates; however he was still not happy about the Nonrecurring Charges discount.

Mr. Carter reported that to date, the County had not incurred any discounts but that this could be a financial consideration in the future. He added that potentially, even with the discount, if fiber installations ramped up, the money could be recovered. He reiterated that the fiber installation discount was an incentive for connection.

Ms. Rorrer noted that one of reasons why the discount and amortization opportunities were there was because the only way to be successful was to have customers and this was being done by making things affordable. She added that these discounts put potential customers in a position to be more able to afford a fiber connection to their home and use the internet in a totally different way. She then advised Members that she felt strongly that they would be jeopardizing the viability of the Authority's network if they considered eliminating these. Mr. Bruguere suggested leaving these in the rate structure for now and then consider taking them out later as they were an incentive to get people connected now. Ms. Rorrer then noted that if a customer received a 50% discount, the Authority would recover that \$750 and would earn an additional \$750 over a five year contract.

Members and staff then briefly discussed the difference between the proposed rates and the current rates with staff noting that the only changes being made were to the local access transport rates and that these were the rates that were being used on an interim basis as authorized by the Authority.

Following this brief discussion, Mr. Hale moved to approve resolution **R2013-07** Establishment of Revised Rates, Fees, and Charges to Service Providers to reflect the new local access rates, including Tiers 1, 2, and 3 but not including the Nonrecurring Charges discount.

Mrs. Brennan seconded the motion and noted that she thought the idea of a workshop with BRI and the public would be beneficial.

Mr. Carter explained that the Nonrecurring Charges discount costs would be recovered plus some and that maybe this needed to be shown before this was stricken.

Mr. Saunders noted that he felt that staff felt strongly about this and that he would go along with what they recommend. Mr. Carter noted that he was not generally in favor of subsidies and he suggested

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tabling the removal of the Nonrecurring Charges discount. He added that these rates had been authorized to be used until they were officially approved.

Mr. Hale then withdrew his previous motion and then moved to approve resolution **R2013-07** Establishment of Revised Rates, Fees, and Charges to Service Providers and Mr. Bruguere seconded the motion.

It was then further clarified that the Nonrecurring Charges discounts were already in place and that the local transport access charges using the Tiers were the only new rates in the proposed resolution. Members then noted that they were not addressing the Nonrecurring Charges discount yet, even though Ms. Brennan noted that now was the opportunity to take them out at this time.

There being no further discussion, Members voted (3-1) by roll call vote to approve the motion, with Ms. Brennan voting NO and the following resolution was adopted:

RESOLUTION R2013-07
NELSON COUNTY BROADBAND AUTHORITY
ESTABLISHMENT OF REVISED RATES, FEES, AND CHARGES
TO SERVICE PROVIDERS

WHEREAS, Pursuant to §15.2-5431.25 (B) and (C) of the Virginia Wireless Service Authority Act, the Nelson County Broadband Authority may fix and revise rates, fees and other charges after a public hearing at which all of the users of such facilities; the owners, tenants or occupants of property served or to be served thereby; and all others interested have had an opportunity to be heard concerning the proposed rates, fees and charges; and

WHEREAS, after the adoption by the authority of Resolution **R2013-03**, a resolution setting forth the preliminary schedule or schedules fixing and classifying such rates, fees and charges, notice of a public hearing, setting forth the proposed schedule or schedules of rates, fees and charges, that was advertised in two publications, at least six days apart, in a newspaper having a general circulation in the area to be served by such systems at least 60 days before the date fixed in such notice for the hearing.

NOW, THEREFORE, BE IT RESOLVED, by the Nelson County Broadband Authority that the revised schedule fixing and classifying rates, fees, and charges is hereby adopted and in effect as follows:

Local Access Rates (Rates for Providers to Utilize the Network for Transport to an End User):

Class of Service	Speed (Mbps)	MRC
<u>Tier 1</u> Last Mile (E7 to ONT)	25x5	\$ 25
	50x10	\$ 50
<u>Tier 2</u> Last Mile or Service Provider Middle Mile (OLT to ONT/OLT)	25x25	\$ 75
	50x50	\$ 150
	100x100	\$ 300
	250x250	\$ 700
	500x500	\$ 850
	1,000x1,000	\$ 1,000

Tier 3 Private WAN	Two Site WAN "P2P" (ONT to ONT)	25	\$ 250
		100	\$ 800
		500	\$ 1,280
		1,000	\$ 1,660
	Three or More Site WAN "Cloud" (per node)	100	\$ 500
		500	\$ 800
1,000		\$ 1,040	

Non-recurring charges (NRC) are those costs incurred in connection with the installation of the fiber drop and ONT. The customer will be responsible for the payment of these costs on the following terms.

NRC not exceeding \$1500 will be discounted as follows:

<u>Term of Contract</u>	<u>Discount</u>
12 months	none
24 months	10%
36 months	20%
48 months	35%
60 or more months	50%

The undiscounted balance of NRC together with any NRC in excess of \$1500 may be amortized over the term of the original contract.

Colocation Charges for Providers within NCBA shelters:

<u>Quantity</u>	<u>Monthly Cost</u>
2 RU	\$75.
One-half rack	\$200.
Full Rack	\$350.

All rentals are based on a space available basis. Rental will include access to one 20 amp, 120 volt circuit. Redundant CC power (-48 volt) will be available as well. The Colocation charges include up to 20 amps of DC power. Additional DC power, subject to availability, will be priced at \$6.25 per amp in 10 amp increments.

Tower Access:

<u>Location on Tower</u>	<u>Price per Month per Customer</u>
Top thirty feet in 10 foot sections	\$275 per antenna for first three antennas (includes cables and ancillary equipment such as tower mounted amplifiers) \$150 per additional antenna installed by the same lessee.
Next thirty feet in 10 foot sections	\$175 per antenna for first three antennas (includes cables and ancillary equipment such as tower mounted amplifiers) \$90 per

	additional antenna installed by the same lessee.
Remaining access in 10 foot sections	\$50 per antenna (includes cables and ancillary equipment such as tower mounted amplifiers)

All tower access charges are in addition to a site access fee of \$200 per month. Site access fee entitles lessee access to electric power (contracted for by lessee) and ground space for cabinet (10 square feet). Shelter colocation charges and local transport charges are additional as are lease space for placing shelters, generators or other equipment. Items not specifically addressed will be priced on an individual basis.

Preference will be given to providers wishing space higher on the towers. The NCBA may limit the size of antennas or duration of leases for antennas located below the top 80 feet.

Tower leases will be accepted based on maximum allowable loading of a tower. If, in the sole discretion of the NCBA, an analysis of the structural integrity of the tower is deemed necessary, then the costs of the analysis will be borne by the lessee.

These rates apply to towers operated by the NCBA. Rates for towers leased by the NCBA may be subject to approval by the lessor.

Dark Fiber Leases:

The NCBA will have a limited number of fibers available for dark fiber leasing at an annual rate of \$1250 per leased fiber per mile for durations longer than 60 months. Leases for 60 months or less will be priced at an annual rate of \$1550 per leased fiber per mile. Fiber will not be leased for periods of less than 24 months. These leases will be subject to prior allocation for other uses and are made at the discretion of the NCBA board.

Increase in Rates:

Rates are firm for a contract or lease term which does not exceed five years.

For contract and lease terms exceeding five years, payments shall be adjusted every year commencing with the first annual anniversary of the lease Commencement Date and thereafter on the subsequent anniversaries of that date (the Adjustment Date). Such adjustments shall be for the purpose of reflecting the increase, if any, in the cost of living. The adjustment, if any, shall be calculated based upon the United States Department of Labor, Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U) for the South, Size D-Nonmetropolitan (less than 50,000) (the "Index").

The Index published as of the most recent month prior to the Adjustment Date shall be compared with the Index twelve (12) months immediately preceding. On the Adjustment Date the annual payment shall be increased by the percentage equal to the change, if any, in the Index between the two specified months. The Adjusted payment shall then become the new Base payment for the following twelve month period and be used to calculate the next annual payment adjustment.

Penalty and Interest:

Any sum due NCBA and unpaid by the due date shall be assessed a 10% penalty and carry interest at the rate of 12% per annum.

BE IT FURTHER RESOLVED, that Staff is authorized to honor written pricing offers to a party in connection with a contract under negotiation, made in reliance on the rate schedule superseded today, provided that such contract is executed prior to September 1, 2013.

Staff then reiterated that the intent of the Nonrecurring Charges discount was to assist with the hurdle of high connection expenses. It was noted that staff was to further look at wireless provider rates and the Nonrecurring Charges discount.

III. Consent Agenda

A. Resolution – R2013-08 Minutes for Approval

Mr. Hale moved to approve the consent agenda and Mr. Bruguere seconded the motion. There being no further discussion, Supervisors voted unanimously (4-0) by roll call vote to approve the motion and the following resolution was adopted:

**RESOLUTION-R2013-08
NELSON COUNTY BROADBAND AUTHORITY
APPROVAL OF MEETING MINUTES
(February 26, 2013 and April 25, 2013)**

RESOLVED, by the Nelson County Broadband Authority that the minutes of said Authority's meetings conducted on **February 26, 2013 and April 25, 2013** be and hereby are approved and authorized for entry into the official record of the Broadband Authority's meetings.

IV. New/Unfinished Business

A. Broadband Infrastructure Project Update

Mr. Carter reported that staff was in the process of closing out the construction project. He added that Staff had met with MASTEC to address the VDOT punch list and they were going to be working on the last couple of items in the next week or so. He noted that as for the project closeout with NTI, staff was in the process of submitting documents that showed all of the network assets and final reporting would be done at the end of June.

Mr. Carter reported that operationally, the Authority was on the cusp of contracting with Shentel to provide the schools services; which would be a good source of revenue. He added that Midatlantic Broadband should be collocated in the shelter by the first of the month. Mr. Carter then noted that ongoing need to tackle the high cost of installation of the fiber which was a roadblock right now.

A. Network Operator Report - Blue Ridge Internetworks

Mr. Baylor Fooks presented the Network Operator Report for the period of 5/1/13 to 5/23/13 as follows:

I. Operational

Active Service Provider Circuits: 8
Pending Installations 6

Trouble Tickets: One trouble ticket remains open. Bad UPS battery for an ONT.

II. Administrative

BRI is working with Debbie McCann to develop suitable income and deposit reports.

BRI is working with Susan Rorrer to:

1. Develop a Sales Order Addendum to document the cost and term of each Service Provider circuit individually.
2. Obtain approval for expenses related to fiber asset documentation software.
3. Develop process for billing service provider for the actual cost of ONT's.

III. Financial

Income:

Total Service Charges to date: \$5,714.75
Total Other Charges to date: \$9,576.20
Total Charges to date: \$15,290.95

Balance Sheet:

Total Checking/Savings: \$14,790.95
Total Accounts Receivable \$ 500.00
Total Current Assets \$15,290.95

Limited Liabilities & Equity \$0.00

Mr. Fooks then noted that everyone wanted to take advantage of the 5 year term without amortization. He noted that the customer was getting the \$750 discount if the connection charge was more than \$1500 and the customer was obligated to 5 yrs of service. He noted that the objection to sales was that a lot of customers did not want a five year contract. He noted that BRI has offered to let them out of the contract after 2 years if the customer pays off the balance of construction at that point. He then added that as a Service Provider, he has a substantial risk because he is acting as the go between in billing these costs.

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He added that the goal should be to get the network to operate at a break-even point or even so that the NCBA could make capital investments in the network.

Mr. Fooks then noted that the April report was in error and there were now eight (8) active circuits and six (6) orders under contract; so the network now had fourteen (14) customers.

VI. Other Business (As May Be Presented)

There was no other business considered by the Authority.

VII. Adjournment

At 7:05 PM, Mr. Hale moved to adjourn the meeting and Mr. Bruguere seconded the motion. There being no further discussion, Members voted unanimously by voice vote to approve the motion and the meeting adjourned.

DRAFT

Broadband Fund

All expenditures for the Broadband Project are expected to be paid out in the current fiscal year, such that the budget presented is for operations of the network. The FY13 budget reflected only a partial year of operations where the FY14 budget reflects a full year. New expenditure line items include equipment, installations, service contracts, and tower lease payments. Equipment includes electronics relative to connections. Installation expense is the cost to purchase ONT units and run fiber to new connections. This expense line item will be utilized for expense discounted to the customer and expense that will be reimbursed upon installation (non-amortized). This expense was projected assuming 30 new connections at an average cost of \$3,000 per installation. Also included is the previously approved installation fund for those installation expenses which will be amortized and reimbursed over the term of the service contract. Service Contracts is relative to the Calix equipment. Tower lease payments relate to the contract with Rockfish Valley Fire Department which includes provisions for 25% of tower revenue to be paid to the Department.

The network is anticipated to generate revenue from network access charges (co-location, transport) and tower leases. Other revenue includes installation reimbursement. The current rate structure establishes a customer discount of 10%-50% (depending on contract term) on the first \$1,500 of installation expense and allows for the balance to be paid back over the term of the contract, up to five years. Revenue from installations is estimated assuming: 1) 30 connections 2) 5 year contract term 3) Maximum discount of \$750 per customer 4) Non-Discounted cost paid back over 5 years. Fund balance is also utilized which represents the \$250,000 allocated in FY13 from the General Fund for the amortized portion of installation expenses. Expenditures are anticipated to exceed revenues by \$123,335. This shortfall is covered by a transfer from the General Fund in the amount of the shortfall.

The Broadband Authority is not required to hold a public hearing for purposes of adopting a budget. Additionally, authorities are not required to appropriate funds. For authorities, the budget is a planning tool to be utilized in the business management of the enterprise.

BROADBAND PROJECT FUND

EXPENDITURE SYNOPSIS -Presented for Adoption (BBA) 6/27/2013					
Expenditure by Dept.	FY 12-13		FY 13-14		% Change
	<u>Amended Budget</u>		<u>Proposed Budget</u>	Increase/Decrease	
Broadband Project					
Professional Services	\$8,703.00		\$0.00	-\$8,703.00	-100.00%
Engineering Services	\$10,000.00		\$0.00	-\$10,000.00	-100.00%
Construction	\$997,478.00		\$0.00	-\$997,478.00	-100.00%
Project Inspection	\$4,000.00		\$0.00	-\$4,000.00	-100.00%
Equipment	\$187,285.00		\$0.00	-\$187,285.00	-100.00%
Land, Right-of-way, etc.	\$0.00		\$0.00	\$0.00	0.00%
Contingency	\$170,722.00		\$0.00	-\$170,722.00	-100.00%
Network Operations					
Network Operator	\$48,600.00		\$81,600.00	\$33,000.00	67.90%
OSP Maintenance	\$7,400.00		\$7,400.00	\$0.00	0.00%
Professional Services	\$45,000.00		\$10,000.00	-\$35,000.00	-77.78%
Internet Backhaul Fees	\$0.00		\$0.00	\$0.00	0.00%
Insurance	\$2,500.00		\$2,500.00	\$0.00	0.00%
Utilities including locates	\$6,050.00		\$10,000.00	\$3,950.00	65.29%
Equipment	\$0.00		\$15,000.00	\$15,000.00	100.00%
Installations	\$0.00		\$90,000.00	\$90,000.00	100.00%
Installations (Amortized)	\$0.00		\$250,000.00	\$250,000.00	100.00%
Service Contracts	\$0.00		\$5,000.00	\$5,000.00	100.00%
Tower Lease	\$0.00		\$3,075.00	\$3,075.00	100.00%
Total	\$1,487,738.00		\$474,575.00	-\$1,013,163.00	-68.10%
REVENUE SYNOPSIS -Presented for Adoption (BBA) 6/27/2013					
Revenues	FY 12-13		FY 13-14		% Change
	<u>Amended Budget</u>		<u>Proposed Budget</u>	Increase/Decrease	
Broadband Project					
BTOP Award (NTIA)	\$671,255.00		\$0.00	-\$671,255.00	-100.00%
CDBG Fund Transfer	\$27,000.00		\$0.00	-\$27,000.00	-100.00%
General Fund Transfer	\$689,897.00		\$0.00	-\$689,897.00	-100.00%
Year Ending Balance	\$0.00		\$0.00	\$0.00	-100.00%
Network Operations					
Transfer from General Fund	\$50,000.00		\$123,335.00	\$73,335.00	146.67%
Network Access Charges	\$28,800.00		\$75,440.00	\$46,640.00	161.94%
Fiber Leases	\$0.00		\$0.00	\$0.00	-100.00%
Tower Leases	\$2,100.00		\$12,300.00	\$10,200.00	485.71%
Installation Reimbursement	\$0.00		\$13,500.00	\$13,500.00	100.00%
Year Ending Balance	\$18,686.00		\$250,000.00	\$231,314.00	-100.00%
Total	\$1,487,738.00		\$474,575.00	-\$1,013,163.00	-68.10%

From: [Steve Carter](#)
To: [Tommy Harvey](#); [Larrya5819@aol.com](#); [orchards187@gmail.com](#); [Constance Brennan](#); [Constance Brennan](#); [Allen Hale](#); [Allen M. Hale](#); [Larrya5819@aol.com](#)
Cc: ["Phillip Payne"](#); [Susan Rorrer](#); [Candy McGarry](#); [Andrew Crane](#); [Debbie McCann](#)
Subject: Nelson County Broadband Authority - Comparison of Current and Discounted Monthly Tower Access Charges for WISPS
Date: Wednesday, June 26, 2013 5:54:45 PM
Attachments: [SKMBT_C55213062616510.pdf](#)

Good afternoon,

The above attachment provides for consideration for the Authority to provide for a percentage discount of the Tower Access charges currently established in the Authority's Schedule of Rates, Fees and Charges.

Since the Authority's last meeting on May 23rd, staff have been endeavoring to determine 1) whether or not to propose revised tower access charges, and, 2) if so, how to do so and on what basis.

The question of whether or not the current tower access charges should be revised remains unresolved. However, with regard to an objective to have an internet service provider (WISP or Cellular) locate on the Authority's towers and provide services – the above attachment provides for this consideration.

In explanation, input was obtained by staff on June 25th from the VA Center for Innovative Technology. This information pertains to staff's request to CIT staff on the question of tower lease rates for WISPs (Wireless Internet Service Providers, such as Stewart Communication Services). CIT staff submitted two emails (included in the above attachment) providing input on tower lease rates in Virginia based upon information received from various tower companies doing business in Virginia. As noted in the (attached) email message, **CIT staff advised that the average cost across all towers (commercial and private) for 3 antennas with power is \$514.32 per month.** No input was received on whether or not tower location (i.e. elevation) was a factor in determining this average.

Given this information staff developed a comparative rate schedule to denote tower rates discounted at 40%, 50% and 60% in relation to the Authority's current tower rate schedules. The rate comparison (current versus discounted) also provides examples of what the monthly costs/revenues would be for various numbers of antennas installed on a tower at various elevations on a tower. The projected (or discussed) discount period would be three years.

With respect to discounting the current tower rates, the following are related considerations that staff is endeavoring to resolve:

1. Can discounted tower access fees be established for WISPs only while maintaining the current tower rates for cellular companies?
2. If discounted tower access fees are considered appropriate then should they be

discounted for all providers (no distinction in charges between cellular and WISPs)?

3. Is a three year discount period appropriate?
4. Should more time be allowed to determine if the current tower rates are workable or unworkable?
5. Are limitations necessary with regard to discounts being provided for multiple locations (elevations) on a tower?
6. Etc.

In closing, staff has received input from several sources on this subject ranging from the current rates are very attractive even with the \$200 access fee to the rates are too high and unaffordable. And staff has received information reflecting higher and lower tower rates. As such, the question of the appropriateness of discounting the current rates is not easily resolved. **Given this, the decision to be made is that of discounting the current rates as a means of having a company lease space on the towers and providing services to end users and at what percentage discount.**

Additionally, staff established a goal of presenting something as objective as possible on this subject to the Authority by the 6-27 meeting and in submitting this information for consideration staff has done so. In its consideration, the Authority should take whatever time it deems necessary to determine if the consideration(s) presented herewith is the appropriate decision to make (inclusive of whatever other factors may come into play).

Lastly, staff proposes that the majority of the meeting on 6-27 be allocated to consider this subject.

Steve

Stephen A. Carter
Nelson County Administrator
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From: copier@nelsoncounty.org [mailto:copier@nelsoncounty.org]
Sent: Wednesday, June 26, 2013 4:51 PM
To: Steve Carter
Subject: Message from KMBT_C552

NCBA Comparison of Current and Discounted Monthly Tower Access Charges for WISP's

	<u>Current and Discounted Monthly Charges to WISP's</u>			
	<u>Current</u>	<u>Discounted 40%</u>	<u>Discounted 50%**</u>	<u>Discounted 60%</u>
Site access fee (per 10 foot section)	\$200.00	\$120.00	\$100.00	\$80.00
Antenna fees:				
<u>Location On Tower</u>				
Top thirty feet in 10 foot sections				
First three antennas (each)	\$275.00	\$165.00	\$137.50	\$110.00
Antennas in addition to first three (each)	\$150.00	\$90.00	\$75.00	\$60.00
Next thirty feet in 10 foot sections				
First three antennas (each)	\$175.00	\$105.00	\$87.50	\$70.00
Antennas in addition to first three (each)	\$90.00	\$54.00	*\$50.00	*\$50.00
Remaining access in 10 foot sections				
All antennas (each)	\$50.00	*\$50.00	*\$50.00	*\$50.00

All antenna fees assume that antennas are installed within the same 10 foot section of the tower.

Site access fee includes 10 square feet of ground space. Additional space or shelter colocation available for additional charge.

*No discount. \$50.00 minimum charge per antenna.

**Discount that results in charges that comport most closely to charges in information gathered from WISPS, tower lease companies and CIT. The following was provided by the Virginia Center for Innovative Technology (CIT).
 The average across all towers (commercial and private) for 3 antennas with power is \$514.32 per month
 The average for commercial towers (American Tower, Crown Castle, etc.) is \$479.76 per month for 3 antennas
 The average for private towers is \$618 per month for 3 antennas

NCBA Comparison of Monthly Tower Access Charges for WISP's

Example ONE:
3 Antennas - Top 30 Feet

Current and Discounted Monthly Charges to WISP's

	Quantity	<u>Current</u>	<u>Discounted</u> <u>40%</u>	<u>Discounted</u> <u>50%</u>	<u>Discounted</u> <u>60%</u>
Site access fee (per 10 foot section)	1	\$200.00	\$120.00	\$100.00	\$80.00
Antenna fees:					
<u>Location On Tower</u>					
Top thirty feet in 10 foot sections					
First three antennas (each)	3	\$275.00	\$165.00	\$137.50	\$110.00
Antennas in addition to first three (each)		\$150.00	\$90.00	\$75.00	\$60.00
Next thirty feet in 10 foot sections					
First three antennas (each)		\$175.00	\$105.00	\$87.50	\$70.00
Antennas in addition to first three (each)		\$90.00	\$54.00	*\$50.00	*\$50.00
Remaining access in 10 foot sections					
All antennas (each)		\$50.00	*\$50.00	*\$50.00	*\$50.00
TOTAL MONTHLY CHARGES		\$1,025.00	\$615.00	\$512.50	\$410.00

NCBA Comparison of Monthly Tower Access Charges for WISP's

Example TWO:

6 Antennas - Top 30 Feet

Current and Discounted Monthly Charges to WISP's

	<u>Quantity</u>	<u>Current</u>	<u>Discounted 40%</u>	<u>Discounted 50%</u>	<u>Discounted 60%</u>
Site access fee (per 10 foot section)	1	\$200.00	\$120.00	\$100.00	\$80.00
Antenna fees:					
<u>Location On Tower</u>					
Top thirty feet in 10 foot sections					
First three antennas (each)	3	\$275.00	\$165.00	\$137.50	\$110.00
Antennas in addition to first three (each)	3	\$150.00	\$90.00	\$75.00	\$60.00
Next thirty feet in 10 foot sections					
First three antennas (each)		\$175.00	\$105.00	\$87.50	\$70.00
Antennas in addition to first three (each)		\$90.00	\$54.00	*\$50.00	*\$50.00
Remaining access in 10 foot sections					
All antennas (each)		\$50.00	*\$50.00	*\$50.00	*\$50.00
TOTAL MONTHLY CHARGES		\$1,475.00	\$885.00	\$737.50	\$590.00

NCBA Comparison of Monthly Tower Access Charges for WISP's

Example THREE:

9 Antennas - Top 30 Feet

Current and Discounted Monthly Charges to WISP's

	Quantity	<u>Current</u>	Discounted <u>40%</u>	Discounted <u>50%</u>	Discounted <u>60%</u>
Site access fee (per 10 foot section)	1	\$200.00	\$120.00	\$100.00	\$80.00
Antenna fees:					
<u>Location On Tower</u>					
Top thirty feet in 10 foot sections					
First three antennas (each)	3	\$275.00	\$165.00	\$137.50	\$110.00
Antennas in addition to first three (each)	6	\$150.00	\$90.00	\$75.00	\$60.00
Next thirty feet in 10 foot sections					
First three antennas (each)		\$175.00	\$105.00	\$87.50	\$70.00
Antennas in addition to first three (each)		\$90.00	\$54.00	*\$50.00	*\$50.00
Remaining access in 10 foot sections					
All antennas (each)		\$50.00	*\$50.00	*\$50.00	*\$50.00
TOTAL MONTHLY CHARGES		\$1,925.00	\$1,155.00	\$962.50	\$770.00

NCBA Comparison of Monthly Tower Access Charges for WISP's

Example FOUR:
6 Antennas - Next 30 Feet

Current and Discounted Monthly Charges to WISP's

	Quantity	<u>Current</u>	Discounted <u>40%</u>	Discounted <u>50%</u>	Discounted <u>60%</u>
Site access fee (per 10 foot section)	1	\$200.00	\$120.00	\$100.00	\$80.00
Antenna fees:					
<u>Location On Tower</u>					
Top thirty feet in 10 foot sections					
First three antennas (each)		\$275.00	\$165.00	\$137.50	\$110.00
Antennas in addition to first three (each)		\$150.00	\$90.00	\$75.00	\$60.00
Next thirty feet in 10 foot sections					
First three antennas (each)	6	\$175.00	\$105.00	\$87.50	\$70.00
Antennas in addition to first three (each)		\$90.00	\$54.00	*\$50.00	*\$50.00
Remaining access in 10 foot sections					
All antennas (each)		\$50.00	*\$50.00	*\$50.00	*\$50.00
TOTAL MONTHLY CHARGES		\$1,250.00	\$750.00	\$625.00	\$500.00

NCBA Comparison of Monthly Tower Access Charges for WISP's

Example FIVE:

3 Antennas - Remaining Tower Space

Current and Discounted Monthly Charges to WISP's

	Quantity	<u>Current</u>	<u>Discounted 40%</u>	<u>Discounted 50%</u>	<u>Discounted 60%</u>
Site access fee (per 10 foot section)	1	\$200.00	\$120.00	\$100.00	\$80.00
Antenna fees:					
<u>Location On Tower</u>					
Top thirty feet in 10 foot sections					
First three antennas (each)		\$275.00	\$165.00	\$137.50	\$110.00
Antennas in addition to first three (each)		\$150.00	\$90.00	\$75.00	\$60.00
Next thirty feet in 10 foot sections					
First three antennas (each)		\$175.00	\$105.00	\$87.50	\$70.00
Antennas in addition to first three (each)		\$90.00	\$54.00	*\$50.00	*\$50.00
Remaining access in 10 foot sections					
All antennas (each)	3	\$50.00	*\$50.00	*\$50.00	*\$50.00
TOTAL MONTHLY CHARGES		\$350.00	\$270.00	\$250.00	\$230.00

NCBA Comparison of Monthly Tower Access Charges for WISP's

Example SIX:

**9 Antennas - Top 30 Feet and Next 30 Feet
(Antennas in Two Tower Sections)**

Current and Discounted Monthly Charges to WISP's

	Quantity	<u>Current</u>	<u>Discounted 40%</u>	<u>Discounted 50%</u>	<u>Discounted 60%</u>
Site access fee (per 10 foot section)	2	\$200.00	\$120.00	\$100.00	\$80.00
Antenna fees:					
<u>Location On Tower</u>					
Top thirty feet in 10 foot sections					
First three antennas (each)	3	\$275.00	\$165.00	\$137.50	\$110.00
Antennas in addition to first three (each)	3	\$150.00	\$90.00	\$75.00	\$60.00
Next thirty feet in 10 foot sections					
First three antennas (each)	3	\$175.00	\$105.00	\$87.50	\$70.00
Antennas in addition to first three (each)		\$90.00	\$54.00	*\$50.00	*\$50.00
Remaining access in 10 foot sections					
All antennas (each)		\$50.00	*\$50.00	*\$50.00	*\$50.00
TOTAL MONTHLY CHARGES		\$2,200.00	\$1,320.00	\$1,100.00	\$880.00

Steve Carter

From: Terry, Sandie (CIT) <Sandie.Terry@cit.org>
Sent: Tuesday, June 25, 2013 3:23 PM
To: Steve Carter
Cc: Edwards, Michael A. (VITA); Widner, Dan (VITA); Stolle, Caroline (CIT)
Subject: Average Tower Rates

Hi Mr. Carter,

You email question to Michael Edwards with VGIN circled to me regarding average tower rates. To obtain an average I polled the Virginia WISPs and gathered a plethora of information and rates paid to both commercial and private owners. I calculated average cost to place 3 antennas on a tower (placement height was not specified so these are truly averages across various heights) with power and space in a cabinet. I reviewed the tower rates you provided Michael and it appears 3 antennas with power would be \$725 - \$1025 per month depending on location on the tower.

The average across all towers (commercial and private) for **3 antennas with power is \$514.32 per month**

The average for commercial towers (American Tower, Crown Castle, etc.) is \$479.76 per month for 3 antennas

The average for private towers is \$618 per month for 3 antennas

One WISP stated they pay \$904 per month for space for 3 antennas on a commercial tower that includes fiber access, power and generator backup.

As you can see based on these averages the Nelson County rate of \$725-1025 per month is quite a bit higher than these averages UNLESS that price includes fiber access. I did not interpret your rates as including fiber.

I hope this helps and if we can offer any further assistance, please do not hesitate to contact us.

*Regards,
Sandie*

*Sandie Terry
Program Manager, Broadband
540.420.4979 (m)*

From: Edwards, Michael A. (VITA)
Sent: Wednesday, June 19, 2013 3:44 PM
To: Terry, Sandie (CIT)
Cc: Stolle, Caroline (CIT); Widner, Dan (VITA)
Subject: RE: Virginia Broadband Map

Steve Carter

From: Terry, Sandie (CIT) <Sandie.Terry@cit.org>
Sent: Tuesday, June 25, 2013 4:51 PM
To: Steve Carter
Cc: Edwards, Michael A. (VITA); Widner, Dan (VITA); Stolle, Caroline (CIT)
Subject: RE: Average Tower Rates

Steve,

I am a member of WISPA (the national association of WISPs) and specifically the Virginia chapter. I emailed a question to the listserv requesting average costs and some responded via email and a few phone calls. Following are copies from the emails received. I am not including their names as I cannot do that without their permission and that would take some time to seek. Essentially I broke these out by tower owner and then averaged by owner and averaged for commercial vs. private and a total average.

American Tower-Canby	1573.84 - 12 antennas and inside building space- includes power.
Crowne Castle-Bull run	1432.86 - 8 antennas and inside building space- includes power.
Crown Castle-Leesburg	1221.69- 12 antennas and inside building space- includes power.
Private-Foxcroft	2500.00- 12 antennas and ground space for building.
Global Tower Partners-Bluemont	4223.27- 14 antennas and inside building space- includes generator backed power and low cost access to fiber facilities. (tower company covered buildout cost)
Private -Lerner	4701.04- 14 antennas and inside building space- includes generator backed power
SBA Towers-Mt Weather	2373.88- 14 antennas and inside building space- includes generator backed power
Private-Short Hill	2704.00 -15 antennas and inside building space- includes power

We pay \$150/mo for Water Tower Space (roughly 100-150 feet AGL); and between \$175 to \$450/mo for tower space (roughly 150-450 AGL). Over \$450 approaches not economically viable for us. Our basic subscription rate is \$40/mo. At \$450/mo for tower rent, it takes revenue from 11 customers just to cover the lease cost.

Most Crown Castle sites we have been able to around \$500 per month. American Tower is similar in price maybe a little cheaper. Private sites the average price for us has been around \$300 a month.

I asked a price from American Tower and TowerCo for three antennas with power and got a range of 500-700 a month

*Regards,
Sandie*

Sandie Terry
Program Manager, Broadband
540.420.4979 (m)