February 14, 2017

Virginia:

AT A CONTINUED MEETING of the Nelson County Broadband Authority Board at 1:00 p.m. in the General District Courtroom located on the third floor of the Nelson County Courthouse, Lovingston Virginia.

Present: Thomas H. Bruguiere, Jr. West District
Allen M. Hale – Chair
Thomas D. Harvey, North District – Vice Chair
Larry D. Saunders, South District – South
Gary W. Strong – Central District
Stephen A. Carter, County Administrator
Candice W. McGarry, Secretary
Debra K. McCann, Treasurer
Susan Rorrer, Director of Information Systems
Andrew Crane, Information Systems Specialist

Absent: None

I. Call to Order

Mr. Hale called the meeting to order at 1:08 PM with all members present to establish a quorum.

II. New/Unfinished Business

A. Schedule of Wholesale Rates, Fees, and Charges

Mr. Harvey noted that the Board had asked the Internet service providers in the County to come back with recommendations on the proposed rates.

Mr. Clay Stewart of AcelaNet LLC then addressed the Board.

Mr. Stewart advised that they currently billed per subscriber and through time that had gotten to be complex. He related their experiences in other counties and noted they had learned a lot on how to better operate more economically and efficiently.

He then referenced his written comments as follows provided to the Board at the meeting:

This letter addresses the proposed changes discussed on January l0th, 2017 at the Nelson County Broadband Authority meeting.

There were three changes presented to the Fee Schedules. They were:

1. Change to circuit types, speeds and pricing to establish rates and service offerings that are both attractive to service providers and conducive to the operations of NCBA.

2. The addition of a Master Tower Lease option for Wireless Internet Service Providers (WISP's) that provides for access to all NCBA towers for a flat monthly charge.

3. The Dark Fiber Lease options.

AcelaNet LLC, d/b/a SCS Broadband, wishes to have the following comments included in the February 14th, 2017 meeting.

I. Rate Change Schedule

The recommended change in rate schedule is to provide better rates for ISPs and to promote 1GB service availability to the Nelson County fiber network. It is also to meet the goal of providing funds to operate the NCBA network. Installation costs, recovery fees and promotions are NOT part of this discussion.

SCS welcomes the effort in changing the rate schedule, as profit cannot be realized with current recurring fees for ISPs. SCS has thought that at some point in the Nelson County fiber project, the fees will need to be on a fixed schedule for backhaul, and not derived by number of subscribers. In other counties, such as Charles City County, SCS is charged a flat-fee for connectivity, regardless of number of subscribers, for 1GB of service. This is then broken into end user service plans starting at 25M bps and up by SCS control systems. In Charles City County, we are charged a flat $500 a month for using the County's fiber to connect customers to our Dedicated Internet Provider, noting that fiber network is smaller and results in lower cost support requirements. The concept of a flat fee backhaul is a universally accepted concept. It provides better economics and budgeting for all parties to the network, the County and all the ISPs.

We have realized that now is the opportunity to submit this proposal at this evolutionary stage of the NCBA network. This would also remove many issues which has been learned from the current rate schedule approach by subscriber count.

Here are the major issues we have seen in the current subscriber rate schedule:

- Billing reconciliation is a nightmare and time consuming
  - Conflicting start dates (amortization issue)
  - Invoice and billing schedules missed
  - Non SCS customer invoices
- Billing process is complex between County and ISPs
- Complexity of Contracts with multiple fees
  - Multiple contracts by amounts per rate schedule
  - Changes in contracts with plan changes
- Difficult to budget Nelson County project month to month

Here are the major benefits of using a flat-fee backhaul rate schedule:

- Billing is simplified
- There is no subscriber reconciliation process each month
- There are not multiple contracts
- No contract changes due to plan change between County and ISP

We believe that an Open Architecture network and a better competitive market would be generated by not having set plan speeds by County. Currently, it is difficult to create consumer plans based on consumer requirements due to rate scheduling. The current retail pricing is being controlled by fixed prices depending on speed and connection type (GPON/ACTIVE/Split type). We believe all parties would be better served if there was pricing based only on connection type, with a speed set at 1GB each. It would be up to the ISP to be responsible for tailoring consumer products with correct descriptions of any limitations (up to/best effort). After all, it is the ISP that must answer to the FCC on such questions as to network description, accuracy and delivery.

With these changes, ISPs would be free to have any plan developed that they deem the market will *need,* and accept. There could be 25Mbps, 50Mbps, l00Mbps, 200Mbps, 500Mbps, 1GB, or anything in between with competitive pricing. The market would quickly normalize in a capitalistic manner with pricing being lowered through real competition, and based on an equal fixed rate for backhaul services for each ISP. The savings in contract preparation, and especially billing, between the County and ISPs would save a tremendous amount of time and money to be applied to a better partnership.

The original idea of the rate schedule came *from,* "How does the County obtain funds to manage and support the fiber network?". It was thought that a per subscriber method would assure the funds once a certain number of subscribers were contracted. The cost of adding customers makes the net profit required a curve, in which for every X number of subscribers, the cost increases slightly, and the net profit increases slightly, but not in a 1:1 ratio. It takes more and more subscribers to reach a profitable, or breakeven point for the County.

Today this is an issue that was not realized at the start of the project. First is the costly complexity that has come about in billing and contracting. But more importantly is the fact that one ISP has extended their own fiber, Nelson Cable. AcelaNet has partnered to run fiber on most of the CVEC network in 13 counties, including Nelson, Shentel has solid plans to lay more fiber in Nelson, and AcelaNet is deploying LTE in 2017 which has speeds twice that of Nelson fiber Tier 1, 50Mbps, with higher speeds in the future. These outside realities put the NCBA network expansion, and profitability in question.

It is in the best interest of the County, and specifically the citizens, that the County work with its actualized partners in the County; AcelaNet, Nelson Cable and TING. Although it may be possible for an additional ISP to enter the market, it is far from likely due to the limitation of subscribers to attempt another successful venture.

AcelaNet suggests that a figure be discussed as to what it costs any ISP to connect to the backhaul which has flat fees for 1GB. It need to be left up to the ISPs to have the hardware and software required to provision whatever speeds and pricing to meet their market. This figure should consider the savings the County will realize in billing and contracting, and also the ISPs who will no longer have complex processes each month with dedicated staff. We also suggest that there be three flat figures, one for each Connection Type (GPON 1/32, GPON 1/16, Active). If the fiber network support contractor needs to know what bandwidth speeds are being sold by ISPs to adjust network planning, this could be accomplished with a simple monthly reporting requirement in the ISP contract.

Suggested options for discussion of a Flat Backhaul Fee Structure:

Option A- Single Flat Fee

Connect Type	MRC	QRC	ARC
ALL/ANY	RATE	5% DISC	10% DISC
TOTAL MRC	RATE	5% DISC	10% DISC

Option B- Single Flat Fee Per Connection Type

Connect Type	MRC	QRC	ARC
GPON 1/32	RATE	5%DISC	10% DISC
GPON	RATE	5% DISC	10% DISC
1/16	RATE	5%DISC	10% DISC
TOTAL MRC	RATE	5% DISC	10% DISC

Option C- Single Flat Fee Per Subscriber Count Monthly Report

Connect Type	MRC	QRC	ARC
>100	RATE	5%DISC	10%DISC
100-200	RATE	5% DISC	10% DISC
201-400	RATE	5%DISC	10% DISC
>400	RATE	5% DISC	10% DISC
TOTAL MRC	RATE	5% DISC	10% DISC

II. Blanket Tower Lease

The new fee schedule also reiterated the release of a new tower contract which has a flat fee for all County owned towers. AcelaNet applauds this decision and in 2017 the citizens will see a great expansion of services in addition to other private investment in non-County owned towers.

III. Dark Fiber Leasing

AcelaNet supports Nelson Cable's desire to lease Dark Fiber. The limited number of fibers causes the concern of “What if the County sold all available fiber, then another company comes in wanting a Dark Fiber?". Our response is that the county should treat the fiber network like any other limited resource. If the County owns a business park, when all the lots are gone, a company wanting to enter the park is out of luck. County property is always a limited resource, whether it is a lot in a business park, or Dark Fiber strands. Lease prices are set, leases are offered to the maximum number of Fibers considered to be available, and it is first come first serve. However, there should be limits placed on how many fibers any one company can lease, and subleasing of fiber strands should continue to be allowed. It is common practice in all fiber deployments that companies lease circuits from Dark Fiber strand owners, as well as swap or lease entire dark fibers. This competition is healthy and best for the County and its citizens. Like Nelson Cable, AcelaNet is interested in Dark Fiber strands, especially with the publicly announced partnership with CVEC.

The number of strands that should be placed on the leasing block should be discussed between all existing ISPs and the County, as well as the County network support contractor, to discuss ideas, pricing and security of these resources for the County's broadband growth.

Mr. Stewart emphasized his suggestion that the Authority go to a flat fee schedule and not continue to bill them on a subscriber basis. He noted that the NCBA network was facing new challenges such as the CVEC project and Nelson Cable's fiber extensions. He added that Shentel planned to bring fiber through the county in Piney River and LTE was imminent. He noted that they were waiting for their FCC license and when approved, they would deploy LTE radios. He noted their plans would be 10-50 MB and would put pressure on the NCBA fiber network unless they were able to open up a next level partnership with NCBA. He noted that NCBA would have to know how many homes were coming on that would cover the costs and those thresholds may not be met with these other things going on; and it should be thought about.

Mr. Stewart then noted another issue was accessing their products and he questioned how it was a free market if they had fixed costs associated with different speeds. He noted that he paid flat fees elsewhere and that currently budgeting and billing was a nightmare and could go away on a flat billing system.

Mr. Stewart then noted the flat fee tables that he provided and stated that with Option A-Single Flat Fee, they would not have different contracts depending on when the subscriber signed up and then the associated reconciliation issues. He added that budgeting was difficult when they were not sure what their bill from the Authority would be each month. Mr. Stewart then noted his preference for Option C because then the NCBA had the advantage of being able to charge more for more customers and this was geared toward how successful the company was. He added that the starting point was where they were today. He then reiterated that the question was how did the NCBA work with ISPs and still cover its costs.

Mr. Stewart then elaborated on his remarks regarding dark fiber leasing as follows:

Mr. Stewart noted that they needed to have a better way to handle the availability of individual fibers. He noted he understood the NCBA's reluctance about it; however the use of fibers could be controlled by fixing a maximum allowed to be leased. He noted that this availability was critical for growth in the County. He then noted that since January of last year, the County data flow had increased 150%; which hadn't happened since 2011 when Netflix got going. He noted that now, people were at Best Buy getting Ultra HD TVs that required four times the bandwidth of previous sets. He added that gaming was also a factor that was increasing bandwidth usage and he predicted it would double in the next twelve months. He reiterated that dark fiber gave them flexibility and if they could lease dark fiber to Richmond; they should be able to do it in Nelson County.

Mr. Stewart then noted he agreed with the provisions as noted in the Blanket Tower Lease section and noted he would like to be include in conversations with Design Nine if the NCBA plans to build additional towers. He then noted he was waiting for upgrades on the Rockfish tower and they had over forty towers to do in the next year. He added that they were negotiating better engineering fees now.

Mr. Harvey then asked Mr. Joe Lee McClellan of Nelson Cablevision to give his feedback. He previously provided the following comments by email:

1. As I understand, the NCBA is supposed to be providing the "Middle Mile" Backbone Fiber throughout the County and the Service Providers using the NCBA Network are providing the "Last Mile" Internet service to the homes and businesses. At the present time the NCBA owns not only the Middle Mile Backbone, but also owns the "Last Mile" and service drop to the home or business and the ONT at the termination point. In my opinion, the NCBA could provide Internet service quicker, at less cost to taxpayers and to more customers by having the Service Provider owning "Last Mile" and the service drop the home or business and the NCBA own the "Middle Mile" Backbone Fiber line and perhaps the ONT. The cost of the service drop is a deterrent to many potential Internet customers.

As a Service Provider on the NCBA Network, Nelson Cable could reduce the customer's cost, in many instances, and make the installation much quicker, using a combination of our equipment and personal and the NCBA current contractor. As an example, we have been waiting since February of last year for service to be installed at the Fire House in Lovingston, because, as I understand, the NCBA has to obtain a Special Use Permit from VDOT to cross under Route 29. We already serve this facility with free cable service and could use the same poles, crossing Route 29 for Internet service and do not have this VDOT restriction requirement. Smith and Smith, located about two miles north of Lovingston, on the west side of Route 29, wanted Internet service, but the service drop cost more than they could justify. The Orchard House Bed & Breakfast (former Horsley home), Rapunzel's, the house (former Dawson) next to the Theatre in Lovingston, to name some, wanted Internet service, but here again the installation cost was too high. If Nelson Cable owned the "Last Mile" and/or the service drop, it could use this infrastructure as collateral for financing the installation.

In addition, by the Service provider owning the "last mile" and the service drop, it would be more of an incentive to advertise and solicit the NCBA Internet service. You may recall the comment that was made by the Blue Ridge Internet (BRI) representative at one of the Quarterly NCBA meetings, in which their response to a question as to why they did not advertise the NCBA Internet service and the response was something to the effect that BRI did not own the system. The NCBA could still have complete control of the entire Network, own the ONT and having their contractor's splicer, splice into the fiber backbone, so as to insure the integrity of the Network. In addition, other safe guards could be devised to accomplish this goal.

In my opinion, the NCBA should not over build another Internet provider, such as they did in Nellysford, VA. Taxpayer funds should be used to provide Internet service to areas that have no Internet service at all. According to the Nelson County Times last week, Acela Net (formally Stewart Computers) has entered an agreement to provide Internet Service on the CVEC poles throughout the County, so most of the County will now be covered. The remaining areas served by American Electric Power (AEP) is where the NCBA should concentrate, like Arrington and Piney River.

2. NCBA rate structures should not be devised to give one Internet Service Provider preferential treatment, such as providing for "Best effort" and "higher priority". It is my understanding that the NCBA Network provides 100 percent of the bandwidth sent over it.

3. NCBA rate structures should be devised to allow the modest income family, with school children, to subscribe to a "basic" minimum Internet package to provide access to the Internet and email, which would cost the Internet

Service Provider less or the NCBA should subsidize the monthly cost for families with school children. The latter suggestion could be incorporated in to future grant request.

4. Future upgrades in the NCBA Network should provide for more than 1 G of bandwidth and until this is accomplished, dark fiber should be made available, so an Internet Service Provider, such as Nelson Cable, does not have to use multiple 1 G circuits.

5. NCBA rate structures should be configured so that Internet Service Providers may provide retail rates that are in line with other rural communities in Virginia and there should be three (3) residential package levels, as there are with business. The additional package should be around 10 Mbps down and 2 Mbps up, for less cost to accommodate modest income families with school children and the higher bandwidth packages at a slightly higher wholesale cost. It takes 20 to 25 Mbps down to stream 4K TV, so most families will continue to take the 25 Mbps down and 5 Mbps up package, as they do now.

The Board needs to continue to be creative in their thinking to make this project succeed.

Mr. McClellan then stated that the NCBA needed to visit the idea of having ISPs install and own the drops to the homes and NCBA stay in the business of owning the backbone. He reiterated that the ISPs should have the option to provide and own the drops. He noted several instances where people could be served, they had not opted for it, and doing that would allow more people to have the service.

He then advised he did not understand the comments regarding maximum splits in the current rates and he supposed that may be related to the Ting offerings. He then noted that in the County's case, if a person subscribed for 25 MB, that was what they got and there was no split between the customers. He reiterated he was unsure as to why that was included unless it was there for Ting; which was okay with him.

Mr. Strong then noted that the concern that NCBA had was providing affordable service to the whole County. He noted that his neighborhood was an open network and they could switch ISPs with no cost except for changing the provider. He noted he understood that the issue was using the best model for the County and not just doing what others had done. He added that using cellular service did not help because over the air delivery was free. He added there was currently no model and that would be jumping too far ahead too fast. He noted the new rate structure was the solution they were looking for right now. He noted there was a variety of methods of deploying Broadband and the NCBA must meet its goal of providing services to all affordably and the County had the requirement of protecting citizens. He then noted that the ISPs had raised good questions; however he did not think significantly changing the rate structure was the answer.

Mr. Bruguiere then asked how the discounts shown in the tables provided by Mr. Stewart matched up with the current chart. Mr. Stewart noted that the flat rates alleviated hours of work on both sides and the ISP agreement required reporting on customers etc. He added that the idea was setting a way that the County could see a certain amount of revenue at each level.

Mr. Hale then questioned the flat rate per customer being for a number of customers and it not having anything to do with how much bandwidth was used. Mr. Stewart explained that for X dollars he got a GB on bandwidth and then developed products that the market demanded. He added that he was not able to be flexible with his packages at this point and wanted that opportunity. He noted a higher level reason was competition which was squelched because they had fixed costs per type of connection. He noted his pricing suggestions would incite natural capitalism and it worked.

Ms. Rorrer then noted that she saw some merit in what Mr. Stewart was saying; however they were not at a point that day to consider it. She added that she thought they needed to move forward with rate schedule as is but that what Mr. Stewart was suggesting should be researched and considered in the future.

Both ISPs noted that they were okay with the pricing proposal as is for now and Ms. Holman reiterated her concerns about speed testing. Mr. McClellan noted he would like to see a slower speed option of 10/2 for some customers; however both ISPs were generally okay with the rate schedule, with Mr. Stewart being in favor of the new tower leasing fees and both being in favor of dark fiber leasing as an option. Ms. Rorrer noted that the dark fiber leasing was the only thing not in the approving resolution; however if the Authority wanted to add it, they had the language prepared from the last meeting.

Mr. Strong asked about the danger of running into their limit of fibers and Ms. Rorrer advised that there was none in the near future and they had the option to expand the use of the fiber by adding cabinets along the route that would split the fibers.

Mr. Carter then advised that the last input from Design Nine was not to include this. He added that those that wanted to lease it now would use it to cherry pick larger customers. He noted that the NCBA should see what their plan to use it for was before allowing it and if it were used to extend ISP networks, it would not induce competition. He added that no one had provided a proposal on this and Design Nine said to wait and not to do it yet. Mr. Strong then clarified that Design Nine advised not to do it now but did not say to not ever do it.

Mr. Stewart noted that if there was a decision to release Dark Fiber, he hoped there would be subleasing provisions; which was common practice. He emphasized that they should think about companies being able to sublease this.

Mr. Harvey suggested that they save the leasing of dark fiber for another day and he stated he did not understand the billing problems related to the current rates. Ms. Rorrer then explained that the process for billing was the customer was provisioned by Ting and they kept a spreadsheet on this and passed it on to the person doing the billing who then passed it on to her. She added that she thought the billing functions would get better with a new Network Operator. She noted that there had been many people involved in the billing process before it was sent to ISPs. She then noted that the ISPs dealt with multiple start dates and circuit sizes and the startup dates did not always agree with that of the Network Operator. She noted that if the ISPs paid a certain amount for a certain number of customers it became easier; however that did not take into account amortization of installation costs.

Ms. Sarah Holman of Nelson Cablevision noted that multiple start dates, drop pricing, and amortization meant each person had to have a billing package created in the billing system. She then described the scenario of having to redo accounts based upon fixing an incorrect startup date. She noted that flat rates would eliminate all of that because the installation date was not tied to the activation date.

Mr. Harvey noted that the projects in Afton were being done with the installation contractor pricing it out and everyone knew the costs because everyone was going to pay the identical bill and that seemed to be working out with those sixty (60) connections there. He noted that by handling it that way, the service providers were not involved until they were contacted by subscribers. He added it was hard to these projects if the customer did not know the monthly cost up front. He further noted that the installation contractor had picked a median cost and had set a price per person; taking everyone's installation credit and applying it to the projects. He stated that was a fair way to do it and then they provided the ISPs information to the potential customers; which saved a lot of work. He added he was not in favor of the ISPs running the drops as he wanted an open system to protect the consumers in the county and the quality of work was the responsibility of the NCBA.

Mr. Carter then advised that he recommended adoption of the rates as presented.

Mr. Harvey indicated he agreed and noted that they were working on this constantly. He added that they needed more communication with ISPs and he thanked them for their input adding that the kids of the County had to have broadband.

Mr. Strong then moved to approve resolution **R2017-02** and Mr. Hale seconded the motion. He then noted that the rates were a work in progress and he thought this was a step forward that resolved some issues but not all and Mr. Harvey noted they were working hard on these.

There being no further discussion, Members voted unanimously (5-0) by roll call vote to approve the motion and the following resolution was adopted:

RESOLUTION R2017-02
NELSON COUNTY BROADBAND AUTHORITY
ESTABLISHED SCHEDULE OF RATES, FEES AND CHARGES

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, the Authority adopted Resolution **R2016-06** on October 6, 2016**,** 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, shall be given by 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, and

WHEREAS, the Authority conducted said public hearing on January 10, 2017,

NOW, THEREFORE, BE IT RESOLVED, by the Nelson County Broadband Authority that the amended schedule fixing and classifying proposed rates, fees, and charges is as follows:

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

	NCBA Proposed Service Types			
Service Tier	Service Class	Service Type	Recommended	Comment
Tier 1	Residential	25/5 Mbps	$25	Best Effort (maximum 32:1 split)
	Residential	50/10 Mbps	$50	Best Effort, maximum 32:1 split)
	Residential	1000/50	$75	Best Effort (maximum 32:1 split)
Tier 2	Business GPON	25/25 Mbps	$60	higher priority than Best Effort
	Business GPON	50/50 Mbps	$150	higher priority than Best Effort
	Business GPON	100/100	$300	higher priority than Best Effort
	Dedicated	250/250	$450	Active Ethernet, higher priority than
	Dedicated	500/500	$850	Active Ethernet, higher priority than
	Dedicated Business	1000/1000 Mbps	$1000	Active Ethernet, higher priority than Best Effort
Tier 3	Wide Area LAN Service	100/100 Mbps	$400	Active Ethernet, highest priority, supports QinQ (two or more connections
	Wide Area LAN Service	500/500 Mbps	$640	Active Ethernet, highest priority, supports QinQ (two or more connections
	Wide Area LAN Service	1000/1000 Mbps	$830	Active Ethernet, highest priority, supports QinQ (two or more connections

Service Types:

- **Tier 1** – Transport service from the service provider's port in the data center to a single customer location. Traffic is untagged at the customer. Circuit is typically asymmetric and priority is set at Best Effort across the core network. NCBA will observe a maximum 32:1 split.
- **Tier 2 -** Transport service from the carrier or provider's port in the colo to a single customer location. Traffic is untagged at the customer. GPON circuits are symmetric and the priority is set higher than Tier 1 for better performance across the core network. NCBA will observe a maximum 16:1 split on this service tier for GPON connections. Active Ethernet connections are symmetric and have a higher traffic priority than Tier 1 services. An example of this is a package of Internet access for a business with regular use of videoconferencing, heavy cloud-based service use, and large file uploads.
- **Tier 3** – Transport service between the carrier or provider's port in the colo as well as between multiple customer locations (fee applies for each end-point outside of provider's NNI). Passed traffic can be tagged or untagged as well as supporting Q-in-Q. The circuit is symmetric and traffic has the highest priority across the core network. An example of this would be a transparent LAN service to link two customer locations.

Non-Recurring Charges:

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 cost on the following terms.

NRC not exceeding $1500 will be discounted as follows:

Term of Contract	Discount
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:

Quantity	Monthly Cost
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:

Option 1:

Location on Tower	Price per Month per Customer
Top thirty feet in 10 feet 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.

Option 2:

WIRELESS INTERNET SERVICE PROVIDERS (WISPs) may enter a master lease for tower space on all NCBA owned or operated towers. The tower access charge under the master lease (the "Master Tower Access Charge") shall be $2,000 per month. For each tower the NCBA adds to its system subsequent to the adoption of this rate schedule, the Master Tower Access Charge shall automatically increase by $250 per month. The Master Tower Access Charge also includes any colocation charges in available shelters and cabinets located at the tower sites as well as 10 square feet of ground space for lessee's cabinet. The location of the tower space leased pursuant to this paragraph shall be determined in the sole discretion of the NCBA. If, in the sole discretion of the NCBA, an analysis of the structural integrity of a 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.

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, the contract or lease shall provide for either of the following payment adjustments: (a) if an extension of an original term is month-to-month or year-to-year, then beginning with the first month of the extension, payment shall be increased 3%, and thereafter by 3% on each subsequent annual anniversary, or (b) if the term is for five years with a right of renewal in five year increments, then upon each renewal payment shall be increased 12%.

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.*

III. Other Business (As May Be Presented)

There was no other business considered by the Authority.

IV. Adjournment

At 2:00 PM, Mr. Bruguiere moved to adjourn and Mr. Hale seconded the motion. There being no further discussion, Members voted unanimously (5-0) by roll call vote to approve the motion and the meeting adjourned.