

March 4, 2008

Mr. Maurice Bresnahan
President
South Carolina ETV
P.O. Box 11000
Columbia, South Carolina 29211

Re: EBS Transition and Leasing Issues

Dear Moss:

You have asked me to provide information in response to a number of questions that have been posed by members of the South Carolina Senate relating to ETV's EBS licenses, the EBS transition process, EBS excess capacity leasing, and timing issues relating to these activities. I have attempted to provide the requested information below.

As I work through the questions you have been asked, I can't help but get the sense that their purpose is to establish that the State of South Carolina may, without running afoul of legal and regulatory obligations, delay action on transitions and leasing of ETV's EBS stations. With respect to transitions, as shown below, it is NOT within the power of the State to delay the process if a "proponent" determines to initiate a transition in any given market. However, it presumably is within the power of the State to delay excess capacity leasing by a state agency such as ETV, and leasing delays may as well discourage proponents from stepping forward within the time remaining for proponent-driven transitions. Both delays, as shown below, carry real costs to the State and its citizens.

A real issue is therefore raised as to *why* the State of South Carolina would want to discourage the transition process from unfolding as the FCC has contemplated, and *why* the State would want to deny itself and its citizens the advantages of wireless broadband services and financial remuneration that would be made possible through leasing activities?

There are clear and seriously adverse consequences of delaying transition and leasing activities until some time late next year when the legislature is able to take up the issue again in its next legislative session.

First, a year or more delay in moving forward on EBS excess capacity leasing of ETV's EBS stations will result in a substantial disincentive for proponents to step forward under the

FCC's rules to initiate proponent-driven transitions by the January 19, 2009 deadline. This is because no company may be motivated to invest millions of dollars and substantial effort to effect transitions of ETV's stations without a reasonable expectation that it will be at least have the chance to bid on a lease of excess capacity and, eventually, operate a wireless broadband system in the state. The result would be that, instead of having the expense and operational burden of the transition process being borne by a third party or parties, that expense and burden will have to be borne by ETV under the FCC's self-transition process. ETV will be required to transition itself both for license preservation reasons and for reasons of continuity of service, if no proponent initiates transitions by the deadline.

I am informed that the burden of ETV having to transition itself would be significant. ETV would either have to purchase and install new digital transmission equipment to maintain its current level of programming service, or pull back on service capabilities by modifying existing analog equipment. The reduction in service would be significant. For example, in the Charleston BTA, there are currently five ITFS groups in service providing a total of 20 channels of video programming. The Mid Band Segment following transition would accommodate five analog channels for EBS service and therefore only five channels will be available for analog video transmissions in that BTA. This is a reduction of 75% of the available video transmission capacity today. In addition to service cuts, the financial burden of even an analog transition will also likely be great. It may not be possible to move some analog transmitters to their new frequency slots. The transmitters that cannot make the frequency move will have to be replaced. Likewise, channel combiners, waveguide tuners and antennas at the transmitter sites are channel specific and will have to be replaced. Moreover, the existing analog equipment is old, obsolete and failing. Some transmitters have been in service since the mid-1980's. Replacement parts are difficult to find, if available at all. Thus, by discouraging and delaying proponent-driven transitions, the State of South Carolina will cause ETV to accept a 75% decrease in service capabilities while still incurring substantial, unnecessary costs.

Second, as noted below, under either transition scenario (proponent-driven transitions or self-transitions), the ultimate deadline for the completion of transitions is the same – October of 2010. That deadline is now about 31 months away. If there is a year or more delay in getting started on the process, not only will ETV have to bear the burden of paying for and accomplishing it, as noted above, but the time frame in which it will have to do so will be shortened by about 40% from what exists today, increasing the prospect that the transition does not get done in all places on time, and thus potentially placing ETV licenses at peril.

Third, again as noted below, there is a deadline of May 1, 2011, for all ETV EBS stations to be operating post-transition, under the new band plan and rules, and providing substantial service. I understand ETV has received estimates that at least two years would be required for a full deployment of wireless broadband facilities on its EBS stations across the State. That being so, if the State waits until next year some time to permit ETV to begin a leasing process, and that process takes a reasonable period of time to unfold, there may in fact not be enough time left for any wireless broadband operator to complete its state-wide build out by the deadline. Once again, therefore, delay imperils ETV licenses.

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Finally, there is the most obvious problem with delaying and/or obstructing transition and leasing activities – every moment of delay resulting in lost opportunities for the State and its citizens to enjoy the benefits that the FCC contemplated in its transitioning of the 2.5 GHz band from an educational television service to an educational broadband service. Those benefits, now being enjoyed in abundance across the country by other EBS licensees who have not been held back in their efforts, include financial support for licensees, free communications services to educators, and the availability of wireless broadband services to the public.

Here are my responses to the questions raised in the letter dated February 28, 2008 by Senators Luke A. Rankin and Glenn F. McConnell. I am in each case repeating the question, followed by my response.

For the purposes of these responses, in addition to FCC rules, I refer to the following two decisions issued by the FCC relating to the EBS band:

FCC 2004 Report and Order – Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and other Advanced Services in the 2150-2162 and 2500-2690 MHz bands, *Report and Order and Further Notice of Proposed Rulemaking* in WT Docket No. 03-66 et seq., FCC 04-135, released July 29, 2004 (69 Fed. Reg. 72,020, released December 10, 2004).

FCC 2006 Reconsideration Order – Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and other Advanced Services in the 2150-2162 and 2500-2690 MHz bands, *Order on Reconsideration and Fifth Memorandum Option and Order and Third Memorandum Opinion and Order and Second Report and Order* in WT Docket No. 03-66 et seq., FCC 06-46, released April 27, 2006 (71 Fed. Reg. 35,178, released June 19, 2006) (effective July 19, 2006).

(1) What is the minimum ETV must do to comply with the FCC rules and not risk losing its licenses? What are applicable deadlines?

RESPONSE

ETV must do the following:

(i) permit each of its licenses to be transitioned to the new band plan in a proponent-driven transition, or, in the event there is no proponent-driven transition for any given license, engage in a self-transition for that license. Proponent-driven transitions, which take place on the basis of Basic Trading Areas (BTAs), do not take place as a result of, and do not require, the consent of ETV, the State of South Carolina or even the FCC itself. See FCC 2006 Reconsideration Order at ¶ 93: “the first entity to file an Initiation Plan with the Commission

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shall automatically be designated as the proponent for a given BTA without any action required by the Commission.” As stated in Section 27.1231(c)(1) (i) of the FCC’s rules, the only requirements for being a proponent are that it must “(i) be a BRS or EBS licensee or BRS or EBS lessee; (ii) send a Pre-Transition Data Request ... and a Transition Notice ... to every BRS and EBS licensee in the BTA, using the contact information in the Commission’s Universal Licensing System; and (iii) be first to file an Initiation Plan ... with the Secretary of the Commission.”

The deadline for proponents to initiate transitions is January 19, 2009. See FCC 2006 Reconsideration Order at ¶ 106: “We agree to extend the length of the Initiation Planning Period until 30 months after the effective date of the amended rules.” See also Section 27.1231(f) of the FCC’s rules: “To initiate a transition, a potential proponent(s) must submit an Initiation Plan to the Commission at the Office of the Secretary in Washington, DC within 30 months of July 19, 2006.”

In the event that a transition is not initiated by that deadline for any given BTA that contains an ETV license, ETV may self-transition. See FCC 2006 Reconsideration Order at ¶ 135: “... we will allow licensees to self-transition. We further conclude, however, that this option may be exercised only after 30 months after the effective date of the amended rules, in markets where a proponent has not filed or has withdrawn an Initiation Plan. We agree with petitioners that allowing licensees to self-transition before 30 months after the effective date of the amended rules would negatively affect the incentives for proponents to transition their BTAs. While we endorse the concept of self-transitions, we believe that a proponent-driven transition will more quickly and efficiently transition the 2.5 GHz band. We believe that self-transitions should be used by licensees to preserve their authorizations in the event that their stations are in a BTA that is not being transitioned by a proponent.”

The deadline for ETV to notify the FCC that it is self-transitioning is April 19, 2009. See FCC 2006 Reconsideration Order at ¶ 141: “Specifically, licensees in areas that will not be transitioned by a proponent must notify the Commission within 90 days of the date Initiation Plans must be filed with the Commission whether they will self-transition or be subject to whatever alternative transition process the Commission may adopt.”

The final deadline for completion of all transitions is October 19, 2010. See FCC 2006 Reconsideration Order at ¶ 143: “Although we agree that licensees should be given a reasonable amount of time to complete the transition, we decline to adopt any of the specific limitations proposed for the self-transition process by any of the petitioners. Instead, we decide to harmonize self-transitions with proponent-driven transitions, which if they followed the timeline prescribed in the rules, without any delays, would conclude 21 months after the Initiation Plans must be filed. Therefore, we conclude that licensees must complete the self-transition on or before 21 months after the Initiation Plans must be filed.”

(ii) ensure that each ETV licensed EBS station is constructed, operating and providing substantial service by May 1, 2011. See FCC 2006 Reconsideration Order at ¶¶ 303-04: “After

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reviewing the various proposals above for the deadline to meet substantial service requirements, we conclude that licensees must satisfy the substantial service standard by May 1, 2011. ... We believe that a May 1, 2011 deadline for demonstrating substantial service strikes the appropriate balance between ensuring that the band is promptly placed in use and giving licensees a fair opportunity to transition their facilities. ... To the extent that licensees are concerned about their ability to meet that deadline, we strongly encourage licensees to begin their transition and business planning now in order to meet that deadline."

(iii) renew EBS licenses on a timely basis as they come up from time to time. Prior to May 1, 2011, no showing of operation and use is required to obtain renewal.

(2) Can ETV continue using analog technology to provide video programming after the transition? If so, for how long?

RESPONSE:

The transition process requires that transmissions under the old band plan terminate and that any transmissions thereafter comply with the new band plan and the technical rules that apply to the various band segments under the new band plan. Those rules permit a middle band segment (MBS) channel to be used to transmit video services on either an analog or digital basis with facilities similar to those that were employed for the station prior to the transition. See Section 27.1232(d)(1) of the FCC's Rules: "*Safe harbor No. 1*. This safe harbor applies when the default high-power channel assigned to each channel group is authorized to operate after the transition with the same transmission parameters (coordinates, antenna pattern, height of center radiation, EIRP) as the downstream facilities before the transition. ... The proponent may also propose the following to the extent consistent with this subpart: ... (iii) Digitization, precision frequency offset, or other upgrades to the EBS transmission or reception systems that allow the proponent(s) to invoke more advantageous interference protection requirements applicable to upgraded systems.

Thus, ETV can continue to use analog technology to provide video programming after the transition, although a single analog channel in the MBS is limited to a single programming service, and thus the result will be a 75% reduction in ETV's ability to transmit programming at each station.

(3) If ETV were to continue using analog technology, would it have to move its channels to any particular segment (middle band, lower band, upper band)?

RESPONSE:

As noted in the response to Question (2), analog technology to transmit video services must be moved to the Middle Band Segment. The FCC's rules do not contemplate analog transmissions following transition in the Lower Band Segment (LBS) or the Upper Band Segment (UBS). See Section 27.53(m)(1) of the FCC's Rules: "Prior to the transition, and

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thereafter, solely within the MBS, for analog operations with an EIRP in excess of γ dBW, the signal shall be attenuated at the channel edges by at least 38 dB relative to the peak visual carrier, then linearly sloping from that level to at least 60 dB of attenuation at 1 MHz below the lower band edge and 0.5 MHz above the upper band edge, and attenuated at least 60 dB at all other frequencies" (emphasis added). The rule does not contemplate analog operations, or provide analog emission specifications, for channels outside the MBS.

(4) If ETV were to continue using analog technology, would this in any way compromise ETV's ability to enter into leasing arrangements with a commercial organization now or in the future to allow that commercial organization to use the spectrum to provide wireless broadband?

RESPONSE:

ETV's continuing to use analog technology for video transmissions in the MBS would of necessity limit the spectrum capacity that could be leased for wireless broadband services to the LBS or UBS portions of a given station's spectrum, thus potentially reducing both the economic value and the service capacity of the wireless broadband systems built on ETV spectrum, but there is nothing in the FCC's rules that would prevent ETV from leasing only the LBS or UBS portions of spectrum for wireless broadband purposes while continuing to transmit video services (analog or digital) in the MBS.

(5) Are there any deadlines that would apply to the leasing of excess capacity? If so, what are those deadlines?

RESPONSE:

There are no FCC rules that require that EBS excess capacity leases be entered into by any particular deadline. A licensee might reasonably conclude, however, that if it is going to rely on wireless broadband deployment by a commercial provider under an EBS excess capacity lease to demonstrate substantial service by the May 1, 2011 deadline noted above, the lease needs to be entered into sufficiently in advance of that deadline to permit the wireless broadband deployment to be achieved in time.

(6) What scenarios were envisioned when the new rules were adopted? Was it generally expected that: (a) the EBS licensees would enter into lease agreements with commercial organizations; (b) the commercial organizations would then do what is necessary to digitize the frequencies to create the excess capacity; and (c) the commercial organizations would then lease the excess capacity from the EBS licensees to sell wireless broadband services to the public (with the EBS licensee retaining at least 5% of the capacity)?

RESPONSE:

In response to (a), the FCC has not articulated an expectation that all EBS licensees would enter into lease agreements with commercial organizations, but it has encouraged leasing in anticipation that the benefits would be substantial. See FCC 2006 Reconsideration Order at ¶ 241: "Leasing has been a staple of EBS since 1983, and has represented the Commission's pioneering movements toward flexible use. Although this flexible use policy has led to a reduction in the proportion of EBS channel capacity used for educational purposes, it has nonetheless served the very critical function of providing much needed revenue to educational entities, while allowing such institutions the autonomy to utilize the proceeds in the manner that suited its particular needs. Such revenue has enabled educational institutions to fund the construction of stations and to develop educational programming." See also FCC 2004 Report and Order at ¶ 179, where the FCC first applied its "Secondary Markets" leasing policies to EBS: "We agree with the commenters that we should extend the rules and policies adopted in the *Secondary Markets Report and Order* to the BRS/EBS spectrum. In the *Secondary Markets Report and Order*, we took important first steps to facilitate significantly broader access to valuable spectrum resources by enabling a wide array of facilities-based providers of broadband and other communications services to enter into spectrum leasing arrangements with Wireless Radio Service licensees. These flexible policies continue our evolution toward greater reliance on the marketplace to expand the scope of available wireless services and devices, leading to more efficient and dynamic use of the important spectrum resource to the ultimate benefit of consumers throughout the country. Facilitating the development of these Secondary Markets enhances and complements several of the Commission's major policy initiatives and public interest objectives, including our efforts to encourage the development of broadband services for all Americans, promote increased facilities-based competition among service providers, enhance economic opportunities and access for the provision of communications services, and enable development of additional and innovative services in rural areas."

In response to (b), the question assumes a fact that is not necessarily accurate. While it is possible (particular in a video model) for digitization to create excess capacity, excess capacity in a post-transition context is really created by the FCC limiting video services to one of four channels of each FCC licensed channel group, making the other three channels (the LBS or UBS channels) available as "excess capacity."

In response to (c), we refer to the response to (a), above. Clearly, the FCC anticipated that commercial organizations would lease the excess capacity from the EBS licensees to sell wireless broadband services to the public.

(7) What would the ramifications be if ETV kept analog channels (for example, potential interference, loss of spectrum rights, monetary or other costs, etc.)?

RESPONSE:

See the response to Question 4, above.

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(8) Are there deadlines under the FCC rules regarding the 2.5 GHz spectrum with which ETV must comply?

RESPONSE:

See the response to Question 1, above.

(9) Can we allow a private entity to be a proponent for our licenses without making a commitment to that private entity?

RESPONSE:

As an initial matter, it is incorrect to assume that ETV's, the State of South Carolina's, or even the FCC's "allowance" is necessary for any party to be a proponent. As stated above in response to Question 1, proponent-driven transitions do not take place as a result of, and do not require, the consent of ETV, the State of South Carolina or the FCC, so long as the three requirements for proponents noted there are met. Thus, neither ETV nor the State of South Carolina can put conditions on a prospective proponent's determination to be a proponent.

That said, once there is a proponent in any given BTA, the FCC's rules do not require EBS licensees to make any commitment to that proponent, other than to cooperate and comply with the transition process requirements set forth in Sections 27.1230 through 27.1239 of the FCC's rules. There is no FCC rule requiring an EBS licensee being transitioned by a proponent to lease excess capacity to that proponent, or refrain from leasing excess capacity to any other party.

Please let me know if you have any questions.

Sincerely,



Todd D. Gray