

BEFORE THE

Federal Communications Commission

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Review of the Commission's)
Rules and Policies)
Affecting the Conversion)
to Digital Television)

MM Docket No. 00-39

REPLY COMMENTS OF UNIVISION COMMUNICATIONS INC.

Univision Communications Inc. ("Univision"), by its attorneys, hereby files these reply Comments on the Commission's Notice of Proposed Rule Making ("NPRM") regarding the transition of the television industry from analog to digital technology. The comments filed in this proceeding reaffirm Univision's belief that the supporters of the 8-VSB modulation standard are primarily those with a financial stake in its development -- consumer electronics manufacturers and their employees. Conversely, broadcasters and other parties with no vested interest in any particular modulation technology express grave concerns in their comments regarding the ability of 8-VSB to deliver a reliable over-the-air signal in urban areas. Far from assuaging these concerns in their comments, consumer electronics manufacturers do little more than sing one more chorus of "*Improvements Are Coming Soon.*" This is the same tune that both the Office of Engineering and Technology ("OET") and the Commission relied upon in earlier decisions rejecting COFDM as an alternative to 8-VSB modulation, and it may well be the swan song for DTV.

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The time has come for the Commission to adhere to its statutory mandate to ensure that over-the-air digital television is available to all Americans and to stop relying on manufacturers' promises that a solution to 8-VSB's reception flaws will eventually be found. Only by acting swiftly to authorize the use of COFDM can the Commission make the benefits of DTV available to all segments of the population while expediting the DTV transition.

I. The Commission Cannot Continue to Rely on the Unsupported Promises of Consumer Electronics Manufacturers That 8-VSB Technology Will Improve

In this proceeding, the consumer electronics industry is arguing for the fourth time that the improvements in 8-VSB technology necessary to resolve reception difficulties in complex multipath environments are just around the corner. In attempting to squelch the COFDM/8-VSB debate in its early stages, manufacturers first told the Commission in the Summer of 1999 that they were working to resolve the multipath interference problems plaguing 8-VSB and that "their second generation receivers, many of which will be available for this [1999] Christmas sales season, will provide substantially better multipath handling capability."¹ Relying in large part on these claims, the Commission's OET issued a report in September 1999 concluding that the 8-VSB modulation standard should not be replaced with COFDM.² However, Christmas came and went and 8-VSB's reception problems remained.

Shortly after the OET Report was issued, the consumer electronics industry once again assured the Commission that "[f]ield-testing indicates that 8-VSB reception is already superior to

¹ See DTV Report on COFDM and 8-VSB Performance, Office of Engineering and Technology, Federal Communications Commission, FCC/OET 99-2 (September 30, 1999), at 21 (discussing claims made by representatives of Panasonic/Matsushita Electric Corporation of America, Philips Electronics North America Corporation ("Philips"), Zenith Electronics Corporation ("Zenith"), Sony Corporation of America, and Thomson Consumer Electronics, Inc. ("Thomson")).

² Id.

current NTSC, and that ongoing improvements in receiver design will greatly improve performance.”³ We are all still waiting for that great improvement.

Next, in February of 2000, the Commission rejected Sinclair Broadcast Group Inc.’s (“Sinclair”) “Petition for Expedited Rulemaking”⁴ urging the Commission to afford broadcasters the flexibility to use 8-VSB or COFDM technology, based on the claims of chip manufacturers that they “are aware of [the multipath interference] problems and are aggressively taking steps to resolve the multipath handling limitations exhibited by some first-generation DTV receivers.”⁵ However, second generation receivers have arrived and have also failed to resolve the 8-VSB reception problem.

Now, in this proceeding, the consumer electronics industry is once again claiming that improvements in 8-VSB are on the way.⁶ Manufacturers would have the Commission believe that “miracle chips” which resolve 8-VSB’s reception difficulties will be available in months but,

³ Comments of NxtWave Communications, Inc. (“NxtWave”) on OET DTV Report (Nov. 9, 1999), at 5.

⁴ Sinclair Broadcast Group, Inc., Petition for Expedited Rulemaking (filed October 8, 1999) (“Sinclair Petition”).

⁵ See Letter from Magalie Roman Salas, Secretary, FCC, to Martin R. Leader, Counsel for Sinclair Broadcast Group, Inc., FCC 00-35 (Feb. 4, 2000), at 4.

⁶ See Comments of The Consumer Electronics Association (“CEA”) at 23 (New products dealing with multipath interference “are just beginning to enter the marketplace, and later generation improvements are in the process of moving off the design boards and into physical silicon chips.”); Comments of Motorola, Inc. at 4 (“[A]ny multipath reception problems attributed to first-generation 8-VSB receivers are ‘solvable’ with expected design improvements”); Comments of NxtWave at 3 (“NxtWave is designing improvements into its second chip scheduled to be available in the fourth quarter of 2000.”); Comments of Philips at 10 (“Currently, Philips Semiconductors is developing its third generation VSB demodulation chip, which is slated for introduction in early 2001. Consumer products based on this chip are expected to be available in retail channels by the fall 2001 shopping season.”); Comments of Zenith at 10 (“Zenith is confident that new generations of chips and receivers will continue to improve indoor reception, and other manufacturers of DTV receivers and chips are making similar progress.”).

as luck would have it, just not in time for the Commission to assess their actual performance in this proceeding. In this regard, it is interesting to note that one of 8-VSB's proponents, Thomson Consumer Electronics, Inc., views improved indoor reception of 8-VSB as requiring "breakthroughs" in DTV receiver performance as opposed to merely the incremental refinements that the Commission is being promised.⁷ As the term implies, "breakthroughs" cannot be predictably scheduled, nor can they be relied upon to occur at all. So, for a fourth time, manufacturers are telling the Commission, broadcasters, and the American public that the solution to 8-VSB's reception problems are "just around the corner." However, as any student of geometry can tell you, if the Commission is foolish enough to follow the electronics industry around yet a fourth corner in this proceeding, it will find itself precisely where it started – without a reliable modulation standard.⁸ It is time for the Commission and consumer electronics manufacturers to admit that the emperor has no clothes and do what is necessary to move the DTV transition forward.

Not only do manufacturers once again offer mere promises, they promise only "improvements" rather than solutions. The Commission, broadcasters, and urban residents must wonder if in fact 8-VSB's reception difficulties can be solved, or if we must wait for generation after generation of "improvements" that never successfully reach the end goal. Also, while

⁷ Comments of Thomson at 12 ("Thomson expects that chip design innovations, graphic equalizer improvements, and other breakthroughs advancing DTV receiver performance will continue to the point where, in 2002, indoor antennas can be used nearly everywhere to receive an ATSC signal.").

⁸ Many 8-VSB advocates cite to a study conducted by CBS, arguing that 8-VSB reception is improving or is simply not a problem. *See* Comments of Zenith at 11; Comments of NxtWave at 10; Comments of International Brotherhood of Electrical Workers at 2; Comments of National Consumer League at 2; Comments of Communications Workers of America, et al., at 2. However, these parties have not submitted the study for review, making it impossible for the

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manufacturers accuse COFDM supporters of demonstrating a lack of concern for consumers who have already purchased 8-VSB DTV sets,⁹ these are the very same manufacturers that continue to sell DTV sets that they privately admit cannot reliably receive over-the-air signals in urban environments.

Not only have these manufacturers failed to disclose the limitations of their 8-VSB sets to consumers, but incredibly, they are also fighting to prevent the imposition of receiver performance standards that would protect urban and other consumers from poorly performing DTV sets.¹⁰ In this regard, the manufacturers' claim that the market will ensure adequate receiver performance rings hollow. Consumers have no way of testing the over-the-air performance of DTV sets until after they have purchased them. In fact, it is impossible to even compare the over-the-air reception capabilities of different DTV sets, as most electronics stores use cable, satellite, or DVD as the video source for their DTV displays. Even in those stores that have available and utilize local over-the-air DTV signals for their DTV demonstrations, consumers will rarely be aware of the complexity and cost of the retailer's antenna system. It is therefore difficult for consumers to draw any reliable conclusions about how a particular DTV set will perform in their home.

Set manufacturers are well aware of this fact and therefore do not expend significant resources on the over-the-air capabilities of their sets. Just as current NTSC sets skimp on the components affecting over-the-air reception in favor of bells and whistles for cable and satellite

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Commission to assess whether the study actually supports these arguments, much less whether the study was properly designed so as to provide useful and reliable results.

⁹ See Comments of Zenith at 13.

viewers, manufacturers are unlikely to apply a different formula to DTV. While over-the-air television reception may not be important to electronics manufacturers, who target wealthy consumers that are cable or satellite subscribers, it is crucial to the 20 percent of all television households and the 40 percent of Hispanic households that still rely on free, over-the-air reception for their television programming.¹¹

Among those that do find over-the-air reception important – broadcasters themselves – the comments in this proceeding reflect great concern over 8-VSB's reception difficulties. Unlike consumer electronics manufacturers who are content to focus on those consumers wealthy enough to afford cable or satellite and top of the line DTV sets, broadcasters have every incentive to ensure that reliable over-the-air DTV reception is available to the widest possible audience. Although their degree of concern and proposed solutions vary, with some broadcasters, including Univision, advocating COFDM as an alternative to 8-VSB technology,¹² some supporting further testing of 8-VSB and COFDM,¹³ some generally concerned with 8-VSB's reception difficulties,¹⁴ and others supporting DTV receiver performance standards,¹⁵

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¹⁰ See Comments of CEA at 12-16; Comments of Phillips at 14-17; Comments of Thomson at 16-19.

¹¹ These figures are based on the 1999 Nielsen Television Index.

¹² See Comments of Univision; Comments of California Oregon Broadcasting Inc. at 3; Comments of Pappas Telecasting of Southern California, LLC at 3-5; Comments of Pegasus Communications Corporation at 3-6; Comments of Sinclair.

¹³ See Comments of The Association of America's Public Television Stations and Public Broadcasting Service at 13-16; Comments of Association of Local Television Stations at 6-7. Fox urges the Commission to retain the 8-VSB standard, but only until the results of its joint research initiative with Phillips Electronics are final. See Comments of Fox Television Stations, Inc. and Fox Broadcasting Company at 16-17.

¹⁴ See Comments of Blade Communications, Inc. at 3-4; Comments of Paxson Communications Corporation at 3.

broadcasters overall are not confident that 8-VSB can be quickly and significantly improved, or that manufacturers will make that concerted effort without some form of intervention from the Commission.¹⁶

II. To Fulfill Its Statutory Mandate to Ensure That Broadcast Service Is Available to All Americans, the Commission Must Make Its Decision Based on the Current State of Technology, and Not on Hopes of a “Breakthrough” in 8-VSB Receiver Technology

The Commission, unlike consumer electronics manufacturers, is required by law to ensure that broadcast service is available to all Americans, regardless of race, color, or national origin.¹⁷ Thus far, the Commission has chosen to rely on the promises of consumer electronics manufacturers that 8-VSB’s urban reception difficulties will be resolved, and that ubiquitous reception will someday be possible. According to the manufacturers, however, the Commission should not be concerned with reception difficulties in urban environments because “[u]nlike many other countries, the United States has substantial populations outside the core urban

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¹⁵ See Comments of Joint Broadcasters at 20-25; Comments of National Association of Broadcasters at 14-17.

¹⁶ Nonbroadcasters also express concerns with 8-VSB’s reception difficulties and limitations. See Comments of Microsoft Corporation at 4-8; Comments of Wavexpress at 1. One “broadcaster” which does support 8-VSB is iBlast Networks (“iBlast”), which plans to use broadcasters’ DTV spectrum for data applications. Comments of iBlast at 1. However, iBlast, just like consumer electronics manufacturers, has a financial stake in maintaining the 8-VSB technology upon which it has based its business plan.

¹⁷ In the Telecommunications Act of 1996, Congress amended Section 1 of the Communications Act “to make it clear that the Commission’s mandate is to regulate interstate and foreign communications services so that they are *‘available, so far as possible, to all people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex’*” See Review of the Commission’s Broadcast and Cable Equal Employment Opportunity Rules and Policies and Termination of the EEO Streamlining Proceeding, Report and Order, FCC 00-20 (Feb. 2, 2000) ((quoting 47 U.S.C. § 151, as amended (1997) (italicized clause added by the 1996 Act)).

environment.”¹⁸ Zenith tells the Commission that allowing broadcasters to use COFDM will result in a loss of service to suburban and rural viewers “far surpassing the comparatively fewer number of viewers in dense urban areas who might be affected by multipath interference.”¹⁹

While these statements are misleading at best, they underscore consumer electronics manufacturers’ lack of concern for urban viewers. The Commission, however, cannot afford to be so cavalier. Just as the Universal Service Fund was created to ensure that rural residents have the same access to telephone service as urban residents, even if the effect is to raise the telephone bills of urban residents, the Commission cannot sacrifice DTV service to urban minority residents in an effort to speed the availability of DTV in the suburbs. While suburban viewers may often be wealthier and therefore more attractive to electronics manufacturers than urban viewers, such a motivation cannot guide the Commission’s actions. Although Univision agrees with CEA that service to suburban and rural viewers is an “important objective,”²⁰ it must not be the Commission’s sole objective in fostering the transition to DTV. The Commission cannot, consistent with its statutory mandate, continue to rely on a technology that can provide reliable service to only suburban and rural viewers when a technology, COFDM, exists now that can provide reliable service to all groups—suburban, rural, and urban.

III. Manufacturers’ Attempts to Discredit COFDM as a Modulation Technology Are Unavailing

As Univision predicted in its comments,²¹ electronics manufacturers and other 8-VSB proponents list a parade of horrors that will result from a Commission decision authorizing

¹⁸ Comments of CEA at 19.

¹⁹ Comments of Zenith at 7.

²⁰ Comments of CEA at 19-20.

²¹ Comments of Univision at 21.

broadcasters to use COFDM. In particular, electronics manufacturers once again argue that using COFDM will involve additional delay and cost. While Univision refuted such claims in its comments,²² one additional concern raised is worth mentioning here. CEA argues that the current DTV standard requires broadcasters to use less power than COFDM, resulting in reduced costs for broadcasters and closer station spacings.²³ As Sinclair has found, however, “the theoretical decodability gap between 8-VSB and COFDM in real-world conditions narrows to just 2 dB today, and, as shown by Sinclair’s tests, this 2 dB difference does not result in a practical difference in reception coverage under those same real-world conditions.”²⁴ More importantly, even if COFDM did require more power, Univision has never requested that the Commission replace 8-VSB with COFDM. Rather, Univision seeks the flexibility for broadcasters to use either COFDM or 8-VSB. Any decision by a broadcaster to use COFDM, along with any associated costs, would be borne voluntarily.

²² Comments of Univision at 21-25.

²³ Comments of CEA at 19.

²⁴ Sinclair Petition at 32.

Conclusion

In light of the foregoing, Univision once again urges the Commission to consider the impact that its decision to maintain exclusive reliance on 8-VSB modulation technology will have on America's Hispanic and other minority communities that reside predominantly in urban areas. Univision therefore urges the Commission to allow broadcasters the flexibility to utilize COFDM in their DTV broadcasts.

Respectfully submitted,

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