

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

Application of

**ECHOSTAR COMMUNICATIONS CORPORATION,
GENERAL MOTORS CORPORATION,
HUGHES ELECTRONICS CORPORATION**

Transferors,

and

ECHOSTAR COMMUNICATIONS CORPORATION

Transferee,

For Authority to Transfer Control

**DECLARATION OF DR. ROBERT D. WILLIG
ON BEHALF OF
ECHOSTAR COMMUNICATIONS CORPORATION, GENERAL MOTORS
CORPORATION, AND HUGHES ELECTRONICS CORPORATION**

I. QUALIFICATIONS

1. My name is Robert D. Willig. I am Professor of Economics and Public Affairs at the Woodrow Wilson School and the Economics Department of Princeton University, a position I have held since 1978. Before that, I was Supervisor in the Economics Research Department of

Bell Laboratories. My teaching and research have specialized in the fields of industrial organization, government-business relations, and welfare theory.

2. I served as Deputy Assistant Attorney General for Economics in the Antitrust Division of the Department of Justice (DOJ) from 1989 to 1991. I also served on the Defense Science Board task force on the antitrust aspects of defense industry consolidation and on the Governor of New Jersey's task force on the market pricing of electricity.

3. I am the author of *Welfare Analysis of Policies Affecting Prices and Products, Contestable Markets and the Theory of Industry Structure* (with William Baumol and John Panzar), and numerous articles, including "Merger Analysis, IO Theory, and Merger Guidelines." I am also a co-editor of *The Handbook of Industrial Organization*, and have served on the editorial boards of the *American Economic Review*, the *Journal of Industrial Economics* and the MIT Press Series on regulation. I am an elected Fellow of the Econometric Society and an associate of The Center for International Studies.

4. I have been active in both theoretical and applied analysis of telecommunications issues. Since leaving Bell Laboratories, I have been a consultant to AT&T, Bell Atlantic, Telstra, and New Zealand Telecom, and have testified before the U.S. Congress, the FCC, and the public utility commissions of about a dozen states. I have been on government and privately supported missions involving telecommunications throughout South America, Canada, Europe, and Asia. I have written and testified on a wide range of telecommunications issues, including

the scope of competition, end-user service pricing and costing, unbundled access arrangements and pricing, the design of regulation and methodologies for assessing what activities should be subject to regulation, directory services, bypass arrangements, and network externalities and universal service. On other matters, I have worked as a consultant with the Federal Trade Commission, the Organization for Economic Cooperation and Development, the Inter-American Development Bank, the World Bank, and various private clients. A full list of my articles and other professional publications and activities is presented in my *curriculum vitae*, which is attached as Exhibit A.

II. PURPOSE OF STATEMENT

5. I have been asked by EchoStar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation to address certain issues related to the proposed merger between EchoStar and DIRECTV (a subsidiary of Hughes), including the impact of the proposed merger on competition and consumers, and the degree to which there are merger-specific efficiencies that cannot be achieved in the absence of the transaction.

6. To summarize my analysis, which is based on information obtained from interviews of senior executives at both EchoStar and DIRECTV as well as from publicly available information, I conclude that (a) the relevant market for analyzing a merger between EchoStar and DIRECTV is no narrower than the Multi-Channel Video Programming Distributor (MVPD) market, and may be broader than that; (b) the proposed merger offers the possibility of

substantial efficiency improvements, especially in radio spectrum use, which would directly benefit DBS consumers by providing an expanded array of services (e.g., the provision of local broadcast programming to more metropolitan areas, more High-Definition Television channels, and more specialized programming), and also benefit an even broader group of consumers by creating a more effective competitor to cable providers than either company could be on its own; (c) the nature of competition in the MVPD market makes it very unlikely that a merger of EchoStar and DIRECTV would result in higher prices and lower output through either coordinated behavior among the participants in the MVPD market or unilateral behavior by the merged firm; (d) the proposed merger is more likely to be of distinct benefit to rural TV households than to diminish competitive benefits available to them; and (e) a merger between EchoStar and DIRECTV would not create or exacerbate any valid concerns the Federal Communications Commission (FCC) has about vertical integration because EchoStar and DIRECTV do not have any significant vertical relationships with programmers, and if anything, the merger could increase competition among program providers.

III. DELINEATION OF RELEVANT MARKET

7. A key step in the competitive analysis of any merger or acquisition is the delineation of the relevant market(s). In the case of a merger between EchoStar and DIRECTV, the relevant market is no narrower than the MVPD market, and may be broader than that.¹ The

¹ The MVPD market includes the cable industry and Direct Broadcasting Satellite (DBS) services. Other available MVPD services include home satellite dishes (HSD), multi-channel multi-point distribution service (MMDS), and private cable or satellite master antenna television (SMATV) systems. See *Annual Assessment of the Status of*

cable industry has been preeminent in the MVPD market.² Although Direct Broadcasting Satellite (DBS) providers have made significant inroads, cable firms still provided service for more than 77 percent of all MVPD subscribers in July 2001.³

8. The definition of a “relevant market” for the purpose of competition analysis of mergers depends crucially on demand substitution considerations – the degree to which consumers view the products as substitutable. In particular, the U.S. Department of Justice and Federal Trade Commission define a market “as a product or group of products and a geographic area in which it is produced or sold such that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future producer or seller of those products in that area likely would impose at least a ‘small but significant and nontransitory’ increase in price, assuming the terms of sale of all other products are held constant.”⁴ This ability to raise prices profitably is a function of the degree to which consumers view two products as providing similar services or benefits. If one firm came to become the sole provider of one of the products, but not the other, and if consumers found the products to be good substitutes, then the presence of the second product would prevent the firm from realizing an increase in profits by significantly raising its price. The second product would directly constrain the price of the first product, and the relevant market would therefore include the second product.

Competition in the Market for the Delivery of Video Programming, Seventh Annual Report, 16 FCC Rcd. 6005, 6008 (2001) (“Seventh Cable Competition Report”), at ¶ 3.

² Seventh Cable Competition Report at ¶ 5. The FCC stated: “Cable television still is the dominant technology for the delivery of video programming to consumers in the MVPD marketplace.”

³ See Comments of National Cable & Telecommunications Association, In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Notice of Inquiry, CS Docket No. 01-129, (dated August 2, 2001), at ¶ 7.

⁴ See Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines, available at http://www.usdoj.gov/atr/public/guidelines/horiz_book/toc.html

9. The business behavior of the DBS industry indicates, and Federal government cases and studies, the views of the cable industry, and the views of independent analysts appear to confirm, that DBS prices are directly constrained by cable prices. Therefore, the relevant market for evaluating the merger of EchoStar and DIRECTV includes cable providers.

10. DBS pricing decisions appear to be driven by competition with cable companies. Executives at both EchoStar and DIRECTV confirm that the objective of each firm is to gain market share by luring consumers away from the leading cable providers, and the firms accordingly price their DBS programming services at levels based primarily on the prices charged by cable providers. In determining their prices, the companies collect detailed data on cable pricing of many systems and, as necessary, adjust their pricing to remain competitive on a national basis.⁵ Moreover, the focus on cable providers, rather than the other DBS firm, is highlighted by DIRECTV's lack of response to EchoStar's recent "I Like 9" pricing strategy.⁶ According to a DIRECTV executive, EchoStar's "I Like 9" package did not affect DIRECTV's pricing decisions because DIRECTV's focus is on obtaining new customers from cable providers, not the other DBS provider.

⁵ When queried regarding their pricing decisions relative to the other DBS provider, executives at both EchoStar and DIRECTV indicated that they monitor the pricing of the other firm, but that such pricing plays little (if any) role in their own pricing decisions. The executives repeatedly emphasized that the primary determinant of their pricing was the price required to lure cable subscribers to DBS.

⁶ In August 2001, EchoStar began its "I Like 9" pricing strategy. Under the plan, new customers who purchased an EchoStar satellite TV system for \$199 or more received EchoStar's "America's Top 100" programming package for \$9 per month for one year. (EchoStar usually charges \$30.99 per month for the America's Top 100 programming package.) See EchoStar Communications Corporation, "DISH Network Announces New 'I Like 9' Promotion: Over 100 Channels of Satellite Television for Only \$9 a Month," Press Release, July 31, 2001.

11. Consistent with the stated focus of DBS providers on attracting cable subscribers, it appears based on statements by executives of both EchoStar and DIRECTV that a majority of new DBS consumers had previously been cable subscribers. In addition, executives responsible for marketing and advertising at both EchoStar and DIRECTV emphasize that their campaigns are focused on convincing extant cable consumers that DBS offers a superior product. This emphasis on cable customers is corroborated by public statements by the cable firms themselves. For example, Cablevision observed in a recent FCC filing that:

“The growth in DBS subscribers is due in part to the aggressive efforts of DIRECTV and DISH network to target Cablevision subscribers in their market efforts. For example, DISH network’s recent ad campaign featured print ads entitled ‘Save Money vs. Cablevision,’ and direct mail, door hangers, and radio live-reads advising consumers that ‘Cablevision is raising your rates again.’ DIRECTV’s ‘Cable Bites’ print ads feature side-by-side comparisons of tier pricing and number of channels.”⁷

12. DBS pricing strategies thus appear to be directly constrained by the prices of cable providers, and therefore cable companies are part of the relevant market for analyzing this proposed merger. Such a position has been affirmed in a number of different cases and studies by the Federal government. In its 1998 complaint against Primestar, for example, the Department of Justice alleged that the MVPD market was the relevant product market and stated that:

“Cable and DBS are both MVPD products. While the programming services are delivered via different technologies, consumers view the services as similar and to a large degree substitutable. Indeed, most new DBS subscribers in recent years are former cable subscribers who either stopped buying cable or downgraded their cable service once they purchased a DBS system. Cable and DBS compete by

⁷ See Reply Comments of Cablevision Systems Corporation, In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Notice of Inquiry, CS Docket No. 01-129, (dated September 5, 2001), at 3.

offering similar packages of basic and premium channels for a monthly subscription fee.”⁸

13. The Justice Department noted that the cable industry had a distinct advantage because it could provide consumers with local broadcast services in local markets (the so-called local-into-local issue). Since the Justice Department’s Primestar complaint, the Congress has allowed DBS providers to provide local-into-local services, which makes cable and DBS even closer substitutes than that suggested by the quotation above.

14. In its annual analysis of competition in video programming, the Federal Communications Commission (FCC) groups the cable industry and the DBS industry in the MVPD market.⁹ In addition, the FCC concluded that “DBS distributors compete with a number of other MVPDs using different transmission media” and that “competitors in the MVPD market include cable operators, DBS operators,” and other technologies, such as wireless cable operators.¹⁰

⁸ See *United States v. Primestar, Inc.*, Civil No. 1:98CV01193 (JLG) (D.D.C.) (May 12, 1998), at ¶ 63.

⁹ See Seventh Cable Competition Report at ¶ 61. The FCC has also concluded that DBS and cable services are substitutes. In its 2000 *Report on Cable Industry Prices*, the FCC concluded that DBS puts statistically significant downward pressure on demand for cable services. The report continues to state that “DBS is a substitute for cable services. This result is different from our earlier finding reported in the *1999 Price Survey Report*, which showed DBS exerting only a modest influence on the demand for cable service. One explanation for the increased importance of DBS as a competitor of cable is the passage of the Satellite Home Viewer Improvement Act (SHVIA) in November 1999, which eliminated the prohibition on DBS delivery of local network signals into their local television markets. The two DBS operators have begun offering local signals in many major television markets thus more closely matching services provided by cable operators.” See *Statistical Report on Average Rates for Basic Service, Cable Programming Services, and Equipment*, Report on Cable Industry Prices, FCC (2001), at ¶ 53.

¹⁰ See *In re Application of MCI Telecommunications Corp. and EchoStar 110 Corp.*, File No. SAT-ASG-19981202-00093, FCC 99-109 (released May 19, 1999), at ¶ 15 and footnote 40. The U.S. Department of Justice (DOJ) agreed with the FCC’s finding in the case. Specifically, the DOJ stated that “the transaction will greatly increase EchoStar’s capacity to transmit video programming and will enhance its ability to compete aggressively and effectively against other distributors of multichannel video programming, including the cable companies that dominate these distribution markets.” See Department of Justice, “Justice Department Urges FCC To Approve Direct Broadcasting Satellite Deal,” News Release, January 14, 1999. Similarly, in response to a General Accounting Office study on the competition between DBS and cable, the FCC filed a comment that it was concerned

15. Although not itself a proof that cable prices constrain DBS prices, further evidence is provided by the fact that the cable industry itself views DBS as a significant competitor.¹¹ The CEO of Cox Communications, Inc., one of the largest cable providers in the nation, argued, “The satellite companies are very real, very serious competitors for our core business, and we take them extremely seriously.”¹² Similarly, in testimony to the Senate Judiciary Committee, National Cable and Telecommunications Association President and CEO Robert Sachs stated that:

“Before 1996, cable operators faced video competition primarily from over-the-air television, C-band satellite receivers, video rentals, and movie theaters. Direct broadcast satellite (DBS) competition has changed that forever. Being digital from the start, and having the advantage of substantially greater channel capacity, DBS spurred cable operators to replace hundreds of thousands of miles of coaxial cable with fiber optics so that they too could offer consumers hundreds of channels of digital video and audio services. In responding to vigorous competition from DBS, cable operators have made enormous investments in not just plant but computers, billing systems, personnel, and training – resulting in significant improvements in the quality of service we provide to our customers.”¹³

about the study’s results because the FCC believed “that DBS penetration not only influences cable rates but also is influenced by them.” See Comments from the Federal Communications Commission in General Accounting Office, “The Effect of Competition From Satellite Providers on Cable Rates,” July 2000, page 40.

¹¹ Further confirmation that cable and DBS compete within a single market comes from Wall Street analysts. A number of analyst reports explain changes in DBS subscriber growth by actions taken by cable companies, and vice versa. For example, Merrill Lynch recently cited “aggressive digital cable rollouts” as a reason for the decline in projected DBS subscriber growth. See Merrill Lynch: “Eye in the Sky: 3Q01 Preview,” October 8, 2001, page 2. Similarly, Goldman Sachs argued that “Increased competition from cable operators not only has the potential of increasing churn of DIRECTV (“winning back” cable subscribers), but also affecting the amount of gross subscribers the company adds.” See Goldman Sachs, “Hughes Electronics Corp.,” September 18, 2001, page 2.

¹² See Christopher Stern, “Cable’s Satellite Wars: Communications Giants Are Waging A Multibillion-Dollar House-to-House Battle for Subscribers,” *The Washington Post*, August 13, 2000, page H01.

¹³ Robert Sachs, Testimony Before Subcommittee on Antitrust, Business Rights, and Competition, Committee on the Judiciary, United States Senate, April 4, 2001, pages 2-3. The National Cable and Telecommunications Association (NCTA) further argued, “Today consumers nationwide may turn to direct broadcasting satellite (“DBS”) as a fully substitutable alternative to cable for MVPD service.” See Reply Comments of National Cable & Telecommunications Association, In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Notice of Inquiry, CS Docket No. 01-129, (dated September 5, 2001), at 1-2. In addition, Daniel Brenner of NCTA wrote to the General Accounting Office that “Cable operators have responded to competition from DBS in a variety of ways that increase the value of their services to customers.” These include: (1) DBS’s far greater channel capacity has spurred cable operations to increase the number of

16. Cable companies have also stated that their pricing decisions and advertising strategies are influenced by competition from DBS providers. AT&T has argued that, “Cable operators’ behavior reflects the significant marketplace constraints imposed by DBS.”¹⁴ In addition, AT&T Broadband has focused entire advertising campaigns on luring DBS customers back to digital cable – underscoring AT&T’s apparent belief that digital cable is a substitute to DBS.¹⁵ Furthermore, in explaining a recent pricing decision, a general manager of a New England cable company said that “We have sought to strike a balance between the need to offset some of our increased programming costs, and the need to price our products competitively against DIRECTV and other satellite providers.”¹⁶

17. Based on the evidence presented above, I conclude that the cable industry should be included in the relevant market for analyzing a merger between EchoStar and DIRECTV. Moreover, markets are dynamic and the boundary of the market in which DBS providers compete with cable operators may be expanding. For example, as bundled packages with digital

channels they provide; (2) cable operators have improved reliability and added new services; and (3) operators have introduced new program packaging options. See Comments from the National Cable and Telecommunications Association in General Accounting Office, “The Effect of Competition From Satellite Providers on Cable Rates,” July 2000, page 44.

¹⁴ See Comments of AT&T Corporation, In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Notice of Inquiry, CS Docket No. 01-129, (dated August 3, 2001), at 12.

¹⁵ In a November 2001 AT&T Broadband television commercial, a woman states that “so, with this basic satellite plan, we have to share a receiver? The service man replies, “well, look on the bright side, ma’am. While your husband’s watchin’ sports in the den, you’ll have sports in your room, you’ll have sports in the kids’ room, and you have sports right here in the kitchen. Be like a sports bar.” The announcer then says, “with satellite, additional TVs are a problem. Different channels on different TVs at the same time. No extra equipment to buy. Problem solved. Digital cable from AT&T Broadband.” Campaign Media Analysis Group, “AT&T Broadband Sports,” November 2001.

¹⁶ Lisa Marie Pane, “Cox To Increase Cable Rates Statewide,” *Associated Press State and Local Wire*, July 10, 2001.

television, high-speed Internet access, and video-on-demand become relatively more important in the MVPD market, the participants in the relevant market may well grow beyond the historical MVPD participants – which include cable firms, DBS providers, “overbuilders,” C-Band providers, private cable or satellite master antenna television (SMATV) systems, and multi-channel multi-point distribution service (MMDS) providers – to include DSL providers, incumbent phone companies, and cellular phone providers. As technologies evolve, the distinction between “video” and “data” services may become increasingly blurred (e.g., video could increasingly be delivered over the Internet, and broadband data services could increasingly be delivered via satellite). To be sure, predicting the future course of the industry is extremely difficult and the market structure may develop in ways that are unanticipated today. Nevertheless, cable and DBS operate in a dynamic market and the relevant market may extend beyond the current MVPD industry.

18. Finally, for the purposes of evaluating the competitive impact of the proposed merger, the national pricing for monthly subscription and programming fees by both EchoStar and DIRECTV suggest that a national-level analysis is the most appropriate (see below for further discussion of the competitive effects of the proposed merger).

IV. MERGER-SPECIFIC EFFICIENCIES

19. The evidence that I have examined shows that the merger offers substantial efficiency benefits, especially in radio spectrum use.

20. Spectrum has become an increasingly scarce resource as the number of commercially viable uses of the spectrum has expanded over the past several decades. Both DBS firms indicate that each is making full use of its current spectrum to provide its existing services, and the prospects for the DBS industry to receive additional spectrum in the next few years are small. Therefore, improving the efficiency with which the DBS sector uses its spectrum is the only viable way for additional spectrum-intensive services to be provided to DBS customers. Such efficiency improvements would directly benefit DBS consumers by providing an expanded array of services, and also benefit a broader number of consumers by increasing competition with the cable industry. Both EchoStar and DIRECTV emphasize that the potential for additional improvements in spectrum efficiency by each firm individually is minimal. Future spectrum efficiency improvements must therefore reflect the elimination of redundant DBS spectrum use or some technological advance that is not currently anticipated by the DBS industry.

21. In the DBS industry, most of the communication is one-way and the marginal consumer requires virtually no additional spectrum.¹⁷ In other words, unlike some other uses of spectrum, doubling the number of DBS consumers receiving one-way services requires essentially no increase in spectrum. Currently, EchoStar and DIRECTV each broadcast many identical cable channels and broadcast station feeds – that is, they both use spectrum for identical programming (e.g., CNN, HBO, local network affiliates, etc.). Such programming could be

¹⁷ The trivial increase in spectrum requirements reflects the need to transmit instructions to the set-top box regarding the relevant service package. The amount of spectrum required for such purposes is extremely small.

eventually provided with roughly half the current spectrum if EchoStar and DIRECTV were combined. And the spectrum ultimately “freed up” by a merger of EchoStar and DIRECTV would thus allow “New EchoStar” to provide new services and other content – especially local channels in many local communities that would not otherwise receive them – that DBS executives emphasize would not be possible in the absence of the merger.

22. Increased spectrum efficiency obtained through a merger of EchoStar and DIRECTV would benefit consumers in a variety of ways.¹⁸ Several broad categories of benefits are apparent. The most important benefit may be that additional DBS spectrum efficiency would facilitate new and improved services (such as greater geographic coverage of local channels, more specialty, ethnic, and foreign language programming, interactive television services, and video-on-demand) that would help DBS more vigorously compete against the cable industry’s ability to upgrade unilaterally its bandwidth to provide these services on a digital-cable tier.

23. Examples of the potential consumer benefits that would result from spectrum made available through the merger include improved and expanded programming choices:

- *More local channels to more metropolitan areas.* New EchoStar believes it can provide local broadcast programming for 100 or more communities (while fulfilling

¹⁸ As the Joint Engineering Statement attached to this application notes, many merger-specific benefits will occur almost immediately, while others will take some period of time to be fully achieved. For example, New EchoStar will need to transition to a common set-top box platform to capture the full benefits of eliminating the current duplicative use of spectrum. The transition to a common set-top box platform, however, will take some time and cost to implement. As a result, the full merger-specific efficiencies will not be achieved until the transition to a common set-top box platform is complete. See the Joint Engineering Statement for further discussion of this issue.

the “must-carry” rules), compared to roughly 40 overlapping communities that the companies serve now.¹⁹ Providing local programming is spectrum intensive, which limits the ability of current DBS providers to deliver such service outside the largest metropolitan areas. Both EchoStar and DIRECTV are launching new “spot beam” satellites to satisfy the must-carry rules for the roughly 40 local metropolitan areas that are already served. To use the spot beam technology, each company has to set aside a certain amount of spectrum (and a corresponding amount of transponder capacity) for regional use. Further upgrades using spot beams to serve even more local areas would require the sacrifice of yet more spectrum, as well as the substantial costs of launching more satellites with spot beam transponders for less potential return as they attempt to serve less populated communities. With only a fixed amount of spectrum (and transponder capacity), each company faces the opportunity cost of giving up frequencies that would otherwise carry satellite networks that are necessary to compete with cable. EchoStar and DIRECTV executives indicated that providing local programming is crucial to encouraging subscribers to switch to DBS from cable; EchoStar and DIRECTV executives added that their internal data show that subscriber growth in areas where local programming is now available has been higher than that in areas without such local programming. The lack of such services in all

¹⁹ EchoStar currently provides local broadcasting services in 36 metropolitan areas, while DIRECTV provides local services in 41 communities. The communities with local broadcasting service overlap significantly: both firms currently provide “local-into-local” service in 35 of the same metropolitan areas.

but the largest metropolitan areas attenuates the competitive pressures imposed on cable providers by the DBS industry.²⁰

- *More HDTV channels.* New EchoStar has committed to use a portion of the spectrum freed up by the merger to provide consumers with additional high-definition programming. Each company currently offers only two to four channels of HDTV programming, largely because HDTV is extremely spectrum intensive.²¹ By freeing up additional spectrum, the combined entity will be able to offer an expanded number of HDTV channels. This commitment of spectrum to HDTV programming will provide additional incentives for consumers to invest in HDTV hardware, and for producers to invest in HDTV content. It may thus help to jump-start the sluggish HDTV adoption process.
- *More diverse programming.* Spectrum efficiencies will also permit expanded specialized programming. Such programming could include ethnic, foreign language, educational, or other programs that appeal to specialized audiences.

²⁰ See Seventh Cable Competition Report at ¶ 13. The FCC stated that “[c]onsumers historically reported that their inability to receive local signals from DBS operators negatively affected their decision as to whether to subscribe to DBS.” Goldman Sachs added that, “The ability to offer local-into-local programming is extremely important for DIRECTV and DISH Network because it enables the companies to more effectively compete with cable operators.” See Goldman Sachs, “Satellite Communications: DBS Operators,” December 18, 2000, page 26.

²¹ EchoStar currently offers four HDTV channels (including a pay-per-view channel), while DIRECTV offers two channels. In addition to a HDTV HBO channel, DIRECTV provides a combination of live and taped sports and entertainment programming and pay-per-view programming on one of its HDTV channels. (The sports and entertainment programming is broadcast for roughly 18 hours per day, while pay-per-view is available for approximately six hours per day.)

24. Another important benefit is that the merger may spur further innovations in DBS product offerings. New EchoStar's larger subscriber base would significantly increase the ability of the firm to make the investments necessary to develop advanced services, such as price-competitive high-speed Internet access, and to achieve the scale necessary to spread the fixed costs among a sufficient number of subscribers.²² These new services could include:

- *Competitive broadband services.* A larger customer base would allow New EchoStar to increase the speed of deployment and the scale of investment in satellite-based, high-speed Internet access systems that could effectively compete with cable modem and DSL services. Industry executives believe that current satellite-based, high-speed Internet offerings are not competitive with cable modem and DSL services for a variety of reasons. For example, given current spectrum allocations and technological constraints, executives stated that the number of subscribers that could be provided broadband service by either EchoStar or DIRECTV was significantly below the subscriber levels needed to achieve a price-competitive satellite-based system. Because of its broader base of DBS subscribers, however, the combined entity would be in a better position to develop a satellite-based broadband system that achieves sufficient economies of scale to compete with cable modem and DSL services. Such economies of scale could be captured by the proposed merger because satellite-based broadband service requires a "redundancy" system, in case a primary

²² The FCC has recognized that firms that can take advantage of scale economies by spreading development costs over a larger customer base are more likely to invest in infrastructure. See *Competition, Rate Regulation, and the FCC's Policies Relating to the Provision of Cable Television Services*, Report, 5 FCC Rec. 4962, 5003, at ¶ 71:

satellite fails, and doubling the number of subscribers does not require a doubling of the number of back-up satellites. The acceleration of competitive satellite-based broadband services would benefit consumers across the United States by providing an alternative to cable modem and DSL services; it would also be particularly beneficial to those in areas – such as rural America – without access to cable modem or DSL service. (See below for further discussion of the competitive impact on the high-speed Internet access market and the consumer benefits to rural areas.)

- *New services.* The elimination of spectrum redundancies will allow New EchoStar to provide a variety of services, including interactive offerings and the necessary bandwidth to provide video-on-demand using personal video recording devices. DBS providers are currently adding these options, but spectrum constraints limit their ability to expand the services to include more choices and more features. For example, as I understand it, spectrum constraints limit the “near” video-on-demand offerings of DBS providers to the top 10 or 20 movies; additional bandwidth would allow New EchoStar to significantly expand such services to include a larger library of movies and potentially “true” video-on-demand. Because digital cable has more bandwidth available and is therefore able to offer such advanced services, DBS providers must offer a similar set of services to be competitive.

25. The merger would also reduce per subscriber programming costs through the

“[I]ncreased concentration [in the cable industry] has provided economies of scale and fostered program investment.”

expansion of the subscriber base. According to executives at EchoStar and DIRECTV, programming costs account for between one-third and two-fifths of the firms' expenses of providing service, and a significant share of MVPD/programmer contracts – including many existing contracts between programmers and either EchoStar and DIRECTV – include volume discount clauses. Since the merger will increase the customer base of New EchoStar substantially, such volume discount clauses would allow the combined entity to benefit immediately from lower programming costs. The larger customer base would also allow New EchoStar to obtain future programming contracts that are more consistent with the prices paid by the largest cable operators, such as AT&T and Time Warner Cable. Neither DBS company believes it would be able to achieve such programming cost savings on its own.

26. Another obvious area of cost savings involves operational costs. A merger would produce significant savings in key business areas, such as uplink and backhaul expenditures and satellites (satellites typically cost between \$220 million and \$300 million to construct, launch, and insure).²³ One other potential long-term efficiency gain involves the standardization of set-top boxes. Such standardization could reduce manufacturing costs through volume purchasing, allow easier integration into TVs and other hardware, and facilitate the production of new technologies. Moreover, the merger would produce administrative cost savings.

²³ The costs of construction, launch, maintenance, and insurance of the “spot beam” satellites do not depend on the number of consumers receiving the signal. A combined entity, with a larger customer base in each local area, would be more willing to assume the fixed costs associated with the required satellites.

V. COMPETITIVE EFFECTS

27. The characteristics of the MVPD market and of DBS firms, in particular, make it very unlikely that this merger will result in higher prices and lower output through either coordinated behavior among the participants in the MVPD market or unilateral behavior by the merged firm.

28. A price increase as a result of coordinated interaction is unlikely following the proposed merger, in part due to the way the DBS and cable industries are structured. Both DBS firms currently set their monthly subscription and other programming fees on a national basis;²⁴ both firms' executives indicate that allowing the price to vary on a regional or local basis would be impractical.²⁵ First, customers not adequately served by cable are geographically dispersed.

²⁴ In 1992, DIRECTV entered into an agreement with the National Rural Telecommunications Cooperative (NRTC). As part of the agreement, which was substantially revised in 1994, NRTC paid more than \$100 million and, in exchange, received an exclusive right in certain regions of the country to distribute most DIRECTV programming transmitted on 27 of the 32 frequencies at the 101° slot. (According to NRTC, it holds such exclusive distribution rights for eight percent of television households.) The influx of resources for DIRECTV was important in the early 1990s because it provided a rural distribution network and, as the Chief Executive Officer of NRTC has noted, it helped to "capitalize the launch of the first DBS service in America." See, for example, B.R. Phillips, Chief Executive Officer of NRTC, Testimony Before Subcommittee on Courts and Intellectual Property, Committee of the Judiciary, United States House of Representatives, February 4, 1998. As a result of the agreement, for customers in "NRTC areas," prices for the DIRECTV programming exclusively distributed by NRTC and its affiliate entities are determined by NRTC and its affiliate entities; prices for all other programming distributed by DIRECTV (e.g., premium channels) are determined by DIRECTV on a national basis. DIRECTV and NRTC are currently engaged in a contractual dispute regarding the scope of NRTC's exclusive distribution rights. New EchoStar will commit to continued uniform and non-discriminatory pricing and service throughout the country.

²⁵ Another element of obtaining DBS service is the upfront cost to the subscriber for the equipment and installation. Local variations for such costs are more practical, and both firms, in fact, have offered temporary local promotions on equipment and installation in the past. However, these local promotions have been offered as a reaction to cable firm activities (e.g., a cable price increase) in particular local areas; according to executives of both firms, these promotions have been aimed at cable subscribers – and not in response to activity by the other DBS provider. Furthermore, several factors suggest that New EchoStar would not want to, and likely could not, raise equipment and installation prices in specific regions above their competitive levels, especially for any extended period of time. First, consumers could purchase their equipment at any location – including over the Internet – making extended regional price differentiation difficult, if not impossible, to implement. Second, EchoStar and DIRECTV executives

Thus, it would be extremely difficult to segment such customers from others. Second, pricing by region or local area would require modifications to the companies' billing and customer support systems; would require retraining of customer service representatives; would limit the companies' ability to engage in national price advertising, including advertising and marketing over the Internet; and may cause customer confusion and dissatisfaction. New EchoStar has committed to maintaining its policy of uniform national pricing for its programming.

29. To set their national prices, DBS firms examine the prices charged by the various cable systems around the country and use these cable prices as a benchmark for setting their prices. Cable firms, on the other hand, set price on a local franchise-by-franchise basis, and prices can differ depending on many factors that are specific to the market in which the franchise is located. Although New EchoStar will face competition from at least one cable firm in any particular franchise area, tacitly reaching an agreement on a coordinated price is not simply a question of reaching an agreement with one other firm. New EchoStar will set its price based on a function of what cable firms are charging in the various franchise areas. In order to elevate price, the various cable multiple system operators (MSOs), each of whom owns systems in a mix of areas, would somehow need to raise price across their range of systems. From the perspective of the cable firms, the optimal price for New EchoStar to charge would likely differ from firm to firm, making an agreement all the more difficult to reach. Thus, a coordinated price increase after the merger would require an agreement among multiple cable firms and New EchoStar, not just an agreement between two firms.

emphasize that they have reduced upfront costs in the past to attract customers, and that they would continue to offer promotions and other incentives so that New EchoStar's upfront consumer costs would be low enough to attract

30. The danger of a coordinated price increase is further attenuated by the fact that many of the major metropolitan areas have more than one non-cable, non-DBS MVPD provider.²⁶ For example, in New York City, Cablevision has argued that it “faces significant competition from various providers of SMATV service.... Terrestrially, RCN also provides service throughout much of the New York metropolitan area, and boasts of its ‘substantial growth’ in the New York market.”²⁷ In Washington, DC, Starpower – a joint venture between RCN and the local utility – is competing against Comcast, the DBS providers, and SMATV entities.²⁸ More broadly, one overbuilder (RCN) is currently providing service in seven of the ten largest metropolitan telecommunications markets.²⁹

31. Furthermore, a unilateral price increase is unlikely after this merger for two principal reasons. First, under current market conditions, I understand that in response to any price increase by either of the DBS firms, subscribers who would leave DBS for cable would substantially outnumber the subscribers who would leave one DBS firm for the other DBS firm. As noted above, executives at both EchoStar and DIRECTV indicated that the majority of subscribers to DBS service were previously cable subscribers and the majority of subscribers that

cable consumers to DBS.

²⁶ These non-cable, non-DBS providers include “overbuilders,” multi-channel multi-point distribution service (MMDS), private cable or satellite master antenna television (SMATV) systems, and incumbent local exchange carriers (ILEC) using Very High-Speed Digital Subscriber Lines (so-called VDSL).

²⁷ See Reply Comments of Cablevision Systems Corporation, In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Notice of Inquiry, CS Docket No. 01-129, (dated September 5, 2001), at 3-4.

²⁸ See Reply Comments of Comcast Corporation, In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Notice of Inquiry, CS Docket No. 01-129, (dated September 5, 2001), at 10-11.

²⁹ See “RCN Announces Third Quarter Results,” Press Release, November 7, 2001.

discontinue one DBS service choose to subscribe to cable rather than to subscribe to the other DBS service. The smaller the diversion of subscribers from one DBS firm to the other, the smaller would be the expected price increase from conceivable unilateral competitive effects after the merger.³⁰

32. Second, the merger could reduce marginal costs through a reduction in the cost of programming per additional subscriber. Even if some subscribers would be diverted from one DBS firm to the other after a price increase, a reduction in marginal costs resulting from the merger could cause the DBS firms to lower their price.³¹

33. In addition, the merger could serve to promote competition by providing New EchoStar with the bandwidth and economies of scale to match the new bundled services offered by cable companies. According to executives at both EchoStar and DIRECTV, the introduction of digital cable – which reduces or eliminates the historical quality and capacity advantages of DBS over (analog) cable – combined with the possibility of bundling high-speed Internet access, video-on-demand, and other advanced services is a competitive threat to future DBS subscriber growth.³² Given spectrum constraints, DBS firms are unable to fully match the existing and potential services offered by cable companies that can unilaterally increase their bandwidth. The danger is therefore that DBS will become less competitive with the leading cable providers. As

³⁰ Robert D. Willig, “Merger Analysis, Industrial Organization Theory and Merger Guidelines,” *Brookings Papers on Economic Activity: Microeconomics*, 1991 at 299.

³¹ Carl Shapiro, “Mergers with Differentiated Products,” Remarks before the American Bar Association, 1995.

³² For example, Goldman Sachs concluded that “We see the bundling of [cable] services as the most significant threat to DBS because of its potential not only to slow gross additions, but also to win back subscribers (seen through higher churn). Both have the obvious effect of slowing net subscriber growth for DISH Network and DIRECTV.” See Goldman Sachs, “Satellite Communications: DBS Operators,” December 18, 2000, page 1.

discussed above, New EchoStar has committed to providing more local channels, more diverse programming, and more advanced services. In addition, executives at the two DBS firms believe that the proposed merger will enable them to develop a more competitive satellite-based, high-speed Internet access option that will help New EchoStar better compete with digital cable's bundled offerings. The combined entity could therefore represent a more effective competitor to the dominant cable firms than the combined competitive impact from each DBS provider on its own.

34. Finally, satellite and uplink infrastructure require substantial investments. By contrast, the marginal costs of providing additional customers with service are relatively low. Such a cost structure would provide New EchoStar with strong incentives to spread its fixed costs among a wider subscriber base. Executives at both firms emphasize that New EchoStar's incentives are to attract new customers before digital cable becomes further entrenched, since consumers who commit to a digital cable/cable-modem bundle may perceive fewer benefits to moving to DBS (relative to analog cable customers).³³ The dynamic incentive to expand the customer base of DBS service will continue after the proposed merger.

Competitive issues in rural America

35. A number of analysts have raised concerns about the impact of an EchoStar-DIRECTV merger on rural consumers. The concern appears to arise from the perception that

cable is not available in some rural areas, and therefore that the proposed merger would create a monopoly in the rural MVPD market. Based on interviews with top executives of both firms and a review of publicly available industry data, such concerns appear to be unfounded for three reasons.

36. First, nearly every household in America with a television is passed by cable: according to the FCC, 96.6 percent of TV households are passed by cable.³⁴ After the merger, the vast majority of households would thus continue to have the benefit of direct price competition described earlier. Furthermore, those households not passed by cable are geographically diverse – that is, they do not appear to be concentrated in any specific areas. Even in the absence of its national pricing commitment, it would be very difficult for New EchoStar to price discriminate in its monthly subscription and other programming fees against households that are not passed by cable (given the geographical mixing of those with and without cable access and the other impediments to price discrimination for DBS service described above).³⁵

³³ Goldman Sachs similarly notes that “As cable operators upgrade their networks and roll out new service, cable subscribers will have less incentive to ‘churn’ to DBS.” See Goldman Sachs, “Satellite Communications: DBS Operators,” December 18, 2000, page 33.

³⁴ A debate exists about precisely the correct way to calculate the percentage of households passed by cable. See Seventh Annual Report at ¶ 18. See also U.S. Department of Commerce and U.S. Department of Agriculture, *Advanced Telecommunications in Rural America: The Challenge of Bringing Broadband Service to All Americans*, April 2000 at 19. I have cited the most commonly used statistic, which is also the principal statistic cited by the FCC in the current and past reports on competition in the market for the delivery of video programming.

³⁵ As noted in footnote 25, the cost of equipment and installation has on occasion varied across markets as a result of targeted local promotions. But, as discussed above, several factors suggest that the prices of equipment and installation would not rise above their competitive levels following the proposed merger. Furthermore, rural subscribers should be able to take advantage of retail subsidies that are made through geographically diverse retail chains or over the Internet. In other words, rural customers would likely be no worse off following the merger, and may benefit from more intense competition between New EchoStar and cable companies; rural customers would also benefit from the above-mentioned expansions of DBS programming and services that would otherwise not be available in the absence of the merger.

37. Second, many rural consumers not passed by cable would still enjoy some choice of MVPD providers. For example, C-Band Satellite or Home Satellite Dish (HSD) has nearly one million subscribers.³⁶ New C-Band digital equipment continues to be developed and made available to customers in order to access and view digital programming. Companies like Motorola have developed C-Band products to compete directly with DBS and allow subscribers to receive digital signals.³⁷

38. Third, New EchoStar has committed to maintaining its national pricing plan. The implication of such a commitment is that MVPD prices for rural consumers will be driven by competition in urban areas. As noted above, executives at both EchoStar and DIRECTV view a national pricing strategy as providing cost savings and advertising benefits, and contributing to higher levels of customer satisfaction. This history suggests, and New EchoStar's stated commitment underscores, that national pricing would be perpetuated.

39. In addition, as noted above, with national pricing, monthly service prices are not likely to rise as a result of the merger. According to executives at EchoStar and DIRECTV, these prices are generally driven by the prices set by the major cable MSOs throughout the country, which often face competition from overbuilders and other MVPD providers. Such

³⁶ See Sky Research, Volume 8, Number 11, November 2001, page 3.

³⁷ It is important to note that C-Band has high up-front costs, with dish costs averaging \$2,000. However, more than a hundred broadcast channels are available for free, and a package of two movie channels and 50 basic services can be purchased for as low as \$30 to \$35 per month. See Orbit magazine's C-band Frequently Asked Questions (FAQ) at <http://www.orbitmagazine.com/orbfaqs.htm>. Motorola's 4DTV offers nearly 300 free channels. For \$30 per month, 4DTV offers 59 subscription channels and 22 movie channels, in addition to the free channels. See http://www.4dtv.com/4DTV/what_4dtv.html.

pricing pressure would not change after a merger of EchoStar and DIRECTV.

40. Thus, it is more likely that the merger would be of distinct benefit to rural TV households than that it would diminish competition's benefits available to them. First, many of the new programming services that could be potentially created from spectrum freed up by the merger would benefit all customers, including rural customers. Second, as emphasized above, the proposed merger will allow the combined entity to have the subscriber base and the spectrum needed to offer a more price-competitive, satellite-based broadband service to rural consumers. For many such rural consumers, satellite broadband is the only feasible means of obtaining high-speed access to the Internet. In evaluating the impact of the proposed merger on rural consumers, it is therefore significant to consider the benefits of expanded broadband delivery.

VI. VERTICAL INTEGRATION

41. In the past, the FCC has raised the concern that vertical integration between video programmers and MVPD providers may “deter competitive entry in the video marketplace and/or limit the diversity of programming.”³⁸ At the same time, the FCC has instituted program access rules, with the stated purpose of preventing vertically integrated MVPDs from treating non-integrated MVPD providers in a discriminatory fashion to the detriment of competition in the MVPD market.³⁹ Put simply, the concern is that an integrated entity (a) would not want to carry programming that competes with programming it owns or (b) would not make available

³⁸ See Seventh Annual Report at ¶ 172.

³⁹ *Id* at ¶ 178.

programming it owns to competing MVPD providers on reasonable commercial terms. This merger, however, clearly does not create or exacerbate any concerns the FCC might have about vertical integration because EchoStar and DIRECTV do not have any significant vertical relationships with programmers.⁴⁰

42. If anything, this merger may increase competition among program providers. The FCC has noted that many programming services have been planned, but have not been able to launch. One factor that has limited the launch of these new networks is the lack of channel capacity, particularly among analog cable systems.⁴¹ The merger between EchoStar and DIRECTV, as stated above, will remove duplication among the two services and thereby provide bandwidth to be used as vehicles to launch new programming services.⁴² In addition, the approximately 15 million subscribers of the combined entity should provide an attractive platform for launching new programs, providing an interested programmer with a large percentage of the subscribers it would need to create a viable network.⁴³ New EchoStar would be unaffiliated with any programming interests, and therefore, would not face any disincentives to carry new programming that its subscribers would value. Therefore, this merger could result in an increase in the programming offerings available to consumers.

⁴⁰ News Corporation has an ownership interest in EchoStar that it has been selling off over time. It currently has less than a five-percent interest in EchoStar.

⁴¹ See Seventh Annual Report at ¶ 176.

⁴² For example, the President of Moviewatch, a network that will be launched next year, recently stated that one advantage of an EchoStar and DIRECTV merger is that “additional spectrum... gives us opportunities to place networks.” See “New Nets Squeeze Into Consolidated Market,” *Multichannel News*, November 26, 2001, page 60.

⁴³ This estimate of the combined subscriber base of New EchoStar excludes the subscribers of NRTC and its affiliate entities who receive DIRECTV programming.

VII. CONCLUSION

43. The proposed merger of EchoStar and DIRECTV offers the possibility of substantial efficiency improvements, especially in radio spectrum use, which would directly benefit DBS consumers by providing an expanded array of services (e.g., the provision of local broadcast programming to more metropolitan areas, more High-Definition Television channels, more interactive services, and more specialized programming), and also benefit a broader number of consumers by increasing competition with the cable industry. These efficiencies do not appear to be available without the merger.

44. Furthermore, the nature of MVPD market competition makes it unlikely that a merger of EchoStar and DIRECTV would result in higher prices and lower output through either coordinated behavior among the participants in the MVPD market or unilateral behavior by the merged firm. Indeed, the proposed merger could serve to promote competition by providing New EchoStar with the bandwidth and economies of scale to match the new bundled services offered by cable companies. The proposed merger of EchoStar and DIRECTV is thus in the public interest.