attachments and conduit rights.[95] The Commission is also processing a series of Section 214 applications for video dialtone facilities and services.[96]

51. We intend to update the information concerning the current status of the deployment of VDT technology that was presented in the *1994 Competition Report*.[97] Among the issues that we intend to explore are: (a) the current projections for competition from VDT networks that are the subject of pending applications for Section 214 authorization; and (b) the results obtained in various market trials for which reports have been filed with the Commission (including information on channel capacity and digital versus analog, system architecture, pricing, penetration rates, subscriber interface equipment, programmer customers). We note that the *1994 Competition Report*'s analysis of these issues was based largely on public information and filings with the Commission, and we intend to use such information to the extent possible in the 1995 Competition Report. Commenters should nevertheless feel free to comment or provide any information on the foregoing that they wish to bring to our attention. In addition, we invite comments on any problems with the information presented last year, the method used to develop the information, or any additional information that the Commission should consider.

52. We also recognize that considerable information has been provided to the Commission in filings in the VDT proceedings described above concerning various issues relevant to the 1995 Competition Report. While we do not ask parties to repeat their comments that have been filed in other proceedings, we request any supplemental information parties choose to submit on these issues.

53. In addition to the foregoing, the Commission seeks comments concerning the following questions:

(a) How will the prices and services offered over VDT networks compare to the prices and services charged by cable operators? How will this comparison change over time? What is the basis for this prediction?

(b) What are the technological impediments and advantages to the deployment of VDT platforms as competitive alternatives to cable systems?

(c) What is the status of the build-out of systems for which Section 214 authorizations have been granted?

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[95] *Telephone Co.-Cable Television Cross-Ownership Rules, Sections 63.54-63.58, Memorandum Opinion and Order on Reconsideration and Third Further Notice of Proposed Rulemaking*, CC Docket No. 87-266, 10 FCC Rcd 244 (1994).

[96] *See* Communications Act § 214, 47 U.S.C. § 214.

[97] *1994 Competition Report*, 9 FCC Rcd at 7495-505, ¶¶ 103-20.

(d) Have the plans for deployment of VDT networks for which Section 214 authorizations have been granted, or the plans for deployment of VDT networks that are the subject of applications currently pending before the Commission, been affected by events since the *1994 Competition Report*?

(e) What are the current plans for deployment of VDT systems that are not currently the subject of applications before the Commission?

(f) Are there particular market characteristics, such as relatively high population density, that are necessary to support competition between VDT and cable systems? Will this limit competition to certain types of geographic areas, such as large metropolitan areas?

54. We also note that in January 1995, Rochester Telephone and its Vancouver, Canada based partner USA Video Corporation reportedly ended their video-on-demand trial due to lack of customer demand for the services.[98] Commenters are asked to discuss any implications of this development.

55. Finally, we note that in October 1994, Bell Atlantic, NYNEX, and Pacific Telesis Group announced the formation of a joint venture in the area of interactive video networks. One part of the venture reportedly will produce content for the networks and the other will develop technical systems. Another company, named Interactive Digital Solutions, was formed by Silicon Graphics and AT&T in October 1994 to develop network infrastructure and related services.[99] Finally, Ameritech, BellSouth and SBC Communications announced a definitive agreement with Disney Corporation to develop and package video programming and interactive services.[100] We seek comment on the competitive implications of these developments

7. Broadcast Television Service

56. In the *1994 Competition Report*, we stated that broadcast television stations continue to be significant distributors of video programming. We indicated that broadcast television is an important source of entertainment, news, public affairs and sports programming. Between 1984 and 1994, the number of broadcast stations, commercial and

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[98] Richard Karpinski, *No Demand for Video-on-Demand - Rochester Quits its Trial*, Interactive Age, Jan. 30, 1995, at 5.

[99] Heather Clancy, *Telcos Step Up Integration Activities -- Baby Bells Team Up on Information Superhighway Effort*, *Computer Reseller News*, Nov. 7, 1994, at 283.

[100] *Three RHCs Join Disney in $500-Million Project to Develop Video Service*, Comm. Daily, Apr. 19, 1995, at 1-2.

noncommercial, grew from 1149 to 1518, and a fourth national network, Fox, emerged. In addition, in recent months, two new networks -- United Paramount and Warner -- have started program distribution. Broadcast stations, whether received over-the-air or through the facilities of an MVPD, still attract a large portion of the viewing audience. For example, as noted in the *1994 Competition Report*, two-thirds of all cable television viewers watching television in the 1992 to 1993 season were viewing a retransmitted broadcast signal. In addition, approximately one-third of all television households choose not to subscribe to cable service. Over-the-air television seems to satisfy their demand for video programming. Nevertheless, we concluded, in the *1994 Competition Report*, that broadcast stations alone cannot currently provide the full range of specialized services offered by cable and other MVPDs.[101]

57. The Commission intends to explore in the 1995 Competition Report the implications of the developments mentioned in the preceding paragraph for competition from broadcast television and requests comments concerning the following questions:

(a) Has the role of broadcast networks changed with the entry of new networks (United Paramount and Warner) in the last year? What is the effect of the fact that at least one of these networks (Warner) is relying on cable carriage of a superstation to provide access to households in areas where they have been unable to enter into affiliation agreements with local broadcast stations?[102]

(b) To what extent is any constraining effect of broadcast networks on the conduct of cable systems affected by the fact that they provide programming that is an important component of the services offered by cable systems? How is any constraining effect limited by the fact that a substantial percentage of broadcast network audiences are viewing the programming through distribution over cable systems?

(c) What is the competitive effect of broadcast television in conjunction with multichannel distribution services such as DBS, which is prohibited from offering network-affiliated broadcast television stations except in limited areas,[103] on the program delivery market?

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[101] *1994 Competition Report*, 9 FCC Rcd at 7492-95, ¶¶ 97-102.

[102] Warner indicates that 18% of its coverage will come from cable carriage of superstation WGN. David Tobenkin, *New Players Get Ready to Roll*, Broadcasting & Cable, Jan. 2, 1995, at 30-31.

[103] 17 U.S.C. § 119, Satellite Home Viewer Act of 1988, Pub. L. 100-667, 102 Stat. 3949 (1988), extended by the Satellite Home Viewer Act of 1994, Pub. L. 103-369, 108 Stat. 3477 (1994)

58. In addition to the issues addressed in the questions set forth above, advances in broadcast technology, such as digital compression and advanced television, could (a) permit multiple programs to be broadcast over a single channel, and (b) expand greatly the overall number of broadcast video signals available in a particular geographic market.[104] We ask for comment on the extent to which such changes would strengthen over-the-air broadcast as a competitor to cable.

59. In addition to full-power broadcast television stations, the Commission licenses low-power television ("LPTV"). These stations, assigned to the same VHF and UHF broadcast spectrum as full-power stations, operate at lower power, reach more limited geographic areas and are afforded secondary status to full-power stations.[105] Under existing Commission rules, an entity could use LPTV stations to offer multichannel video programming service that could be a competitor, especially to premium channels or packages of such channels.[106] The Commission's rules permit LPTV stations to offer "subscription television," whereby the broadcaster charges a fee for the provision of one or more scrambled channels and the equipment to decode the signal.[107] Furthermore, the rules permit an LPTV operator to own more than one such station in a market, unlike the restriction of one station to a market for full-power stations.[108] Thus, multiple LPTV stations in a market could be combined to provide multichannel video service. On the other hand, the allocation of spectrum for LPTV use has been frozen in the largest markets in the United States.[109] In light of these developments, the Commission invites comment concerning the extent to which LPTV technology might be deployed to provide a competitive alternative to cable services if the spectrum is made available for this purpose.

8. Other Distribution Technologies

60. The Commission intends to explore in the 1995 Competition Report the effect of the widespread ownership and use of video cassette recorders ("VCRs") on competition in the market for video programming. Although VCRs are not multichannel video

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[104] *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, Memorandum Opinion and Order/Third Report and Order/Third Further Notice of Proposed Rule Making*, MM Docket No. 87-268, 7 FCC Rcd 6924 (1992).

[105] *See* 47 C.F.R. Part 74.

[106] *1994 Competition Report*, 9 FCC Rcd at 7507-08, ¶¶ 126-30.

[107] 47 C.F.R. § 73.642(a)(2).

[108] 47 C.F.R. § 74.732(b).

[109] *See Public Notice, Notice of Limited Low Power Television/Television Translator Filing Window from April 11, 1994 Through April 15, 1995*, released Mar. 3, 1994.

programming distributors, the Commission has previously observed that the widespread use of VCRs to view over-the-air television programs at times other than when they are broadcast and to view pre-recorded programming provides competition, at least in part, to traditional cable service offerings.[110] A Commission staff study determined that VCRs are best considered a competitor to the premium and pay-per-view services provided by cable operators because both offer commercial-free movies.[111] We invite comment concerning the extent to which the widespread ownership and use of VCR technology might constrain cable system operators' conduct in markets for the distribution of video programming.

61. We also want to examine in the 1995 Competition Report whether the deployment of interactive video and data service (IVDS) will affect competition in the MVPD market. Among the issues regarding IVDS that the Commission may explore in the 1995 Competition Report are: (a) the identities of the licensees, and the locations in which they are authorized to provide service; (b) the types of services that licensees currently envision offering, and the schedule for deploying those services; and (c) the extent to which these services could be substitutes or complements for services offered by cable system operators, and what those services are. Accordingly, we invite comments on the proposed issues, method of developing information, or any additional information that the Commission should consider. We recognize that information may have been provided to the Commission in filings in IVDS proceedings which may be relevant to the 1995 Competition Report. We do not ask parties to repeat here the substance of comments that have been filed in that proceeding except to the extent that they wish to bring particular matters to our attention.

9. Other Distributors

62. The Commission intends to explore in the 1995 Competition Report the possible entry of other types of firms into the market for the delivery of multichannel video programming, such as electric utilities.[112] The *1994 Competition Report* stated that some municipal electric utility companies are actively engaged in or contemplating overbuilding.[113] The Commission also learned that plans to use electric power lines to provide multichannel video services are not well-developed. Nonetheless, the possibility of entry by electric utilities cannot be ignored due to the fact that those companies have already incurred substantial costs to deploy a network that reaches nearly every household in the country.

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[110] *1990 Report*, 5 FCC Rcd at 5019-5020, ¶¶ 109-110.

[111] *See* Florence Setzer & Jonathan Levy, *Broadcast Television in a Multichannel Marketplace* 108 (Federal Communications Commission, Office of Plans and Policy, OPP Working Paper 26, June 1991).

[112] We define electric utilities to include investor-owned utilities, municipal utility systems, and exempt public utility holding companies. 15 U.S.C. § 79c.

[113] *See 1994 Competition Report*, 9 FCC Rcd at 7508-09, ¶¶ 131-33.

63. A number of electric companies are considering the development of broadband networks that are capable of distributing video programming and telephone services.[114] One reason for this activity has been the need for two-way communications capabilities in order to implement energy management solutions. A number of power companies have also formed alliances with cable companies or telephone companies,[115] which could limit the competitive threat posed by the video transmission potential of these networks. Nonetheless, there remains significant interest in developing this potential "third line" into homes. In connection with these developments, we invite comments concerning the following questions:

(a) What is the likelihood that a significant number of power companies might enter the market for the delivery of video services? Which are the existing, emerging or potential providers of video programming service among these companies?

(b) Is it more likely that power companies might choose to serve as "pipeline" companies, and offer the use of their facilities to other video programming providers?

(c) What are the joint ventures, existing or planned, between cable or other communications companies (e.g., LECs, long distance telephone companies) and utilities to implement energy management programs or to provide video services. Should the Commission be concerned about those ventures because they may result in the elimination of a potential source of entry into the market for the delivery of multichannel video programming? To what extent do these joint ventures yield increased efficiency due to economies of scale and scope or for other reasons?

10. Technological Advances

64. There are technological changes and developments that may directly affect the competitive structure of the market for the delivery of video programming. As we observed in the *1994 Competition Report*, these issues may have a significant effect on how competition develops and the manner in which consumers have access to the services these

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[114] *See, e.g.*, Clark Gellings and Karl Stahlkoph, *Positioning Strategies: Utility Information Superhighway* 5-11 (1994) (presentation prepared for Electric Power Research Institute); *Power Companies Outline Plans, Current Projects at Conference on Utility Telecom Involvement*, Telco Competition Report, Feb. 28, 1995; Vincente Pasdeloup, *Utilities Buzz About Telecoms*, Cable World, Feb. 20, 1995, at 86; Harry A. Jessell, *Utilities Getting into Telecommunications*, Broadcasting & Cable, Nov. 7, 1994, at 54.

[115] *See, e.g., Industry Giants Push Into Energy Management Market*, Comm. Daily, Feb. 28, 1995, at 8.

technologies may provide.[116]

65. One significant technological development that may have profound effects on the future of competition in markets for the delivery of video programming is the development of digital compression technology. Digital compression is a technology that reduces the amount of information needed to transmit digitally recorded video, audio and text. This reduction in size or "compression" of digital information can increase the capacity of MVPDs' distribution systems by as much as eight times. It seems likely that such technology will be gradually integrated into information distribution systems, paralleling the transition from analog programming to digitally formatted programming and the introduction of high definition television ("HDTV"). The more quickly programmers and distributors transition to a digital format the sooner they will realize the benefits of compression technology.

66. A number of barriers stand in the way of the transition to digital compression. The first barrier is the determination of a standard digital encoding scheme. Without a standard scheme it is conceivable that not all digital programming would be compatible with all distribution systems. A number of different coding schemes have been developed, but the front runner seems to be MPEG-2, developed under the guidance of the Motion Picture Experts Group.[117] General Instrument, a leading supplier of set-top boxes, is including an MPEG-2 option on its soon to be shipped DigiCipher digital set-top boxes. Other equipment suppliers, including Hewlett Packard and Scientific Atlanta, are similarly proceeding in the development of their own boxes.

67. Another potential barrier to the implementation of digital conversion is the cost of set-top boxes. If MPEG-2 does in fact become the industry standard, consumers must be provided hardware and software needed to process digital signals. Right now, the most basic of digital set-top boxes costs in the range of $600.[118] Some observers believe that MSOs will not begin to invest substantially in digital boxes until prices fall beneath $400.[119]

68. A third potential barrier may be the supply of digitally encoded programming. The process of converting analog programming to a digital format has gone through many refinements, but it still imposes additional costs.[120] As digital distribution channels begin to

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[116] *1994 Competition Report*, 9 FCC Rcd at 7539, ¶ 200.

[117] Leslie Ellis, *Set-Top Wars Won't Brew 'Til '96*, Multichannel News, Feb. 13, 1995, at 3.

[118] Paul Kagan Associates, Inc., *Marketing New Media,* Feb. 20, 1995, at 1.

[119] *Id.*

[120] Interactive Age, *What Does Encoding Cost?*, Nov. 14, 1994, at 36.

emerge, the amount of digital programming will grow, but it may be a number of years before digitally encoded programming displaces analog programming. We ask for comment on the amount of digital programming that is available.

69. In connection with these developments, we invite comments concerning the following questions:

(a) How will competitors using different technologies take advantage of digital compression to enhance their services? Are some competitors likely to derive a greater benefit than others by the use of digital compression?

(b) Is it more likely that digital compression will result in convergence of costs and services among competitors using different technologies, or is it more likely that it will lead to greater divergence among competitors?

(c) What will be the likely barriers, if any, to the deployment of digital compression technology? How can the Commission remove barriers to deployment of this technology?

70. The Commission also expects to explore in the 1995 Competition Report the different transmission media used for distribution of multichannel video programming, such as copper wire, coaxial cable, optical fiber, broadcast and other terrestrial radio frequency communications, terrestrial microwave and satellites, and how they affect, and will affect, industry structure and competition for the provision of video services. We will also explore the hybridization of different transmission media as well as system configurations and designs which may also affect competition. In connection with these issues, we intend to develop information concerning the competitive effects of the various compression, modulation, digitization, multiplexing, data storage and switching techniques that are designed to increase network capacity, efficiency and functionality, and to enhance available services.

71. In connection with these issues, we invite comments concerning the following questions:

(a) What are the capabilities of each technology and the types of services for which each may be applicable?

(b) How will the new technologies be combined with existing technologies?

(c) When will these technological advances be deployed and what is the potential competitive impact of the deployment of these advances?

(d) What changes can be expected from the widespread availability of such technologies? Will technological advances principally affect distribution in local or national markets, or will it affect both equally?

(e) Should the Commission's regulatory framework be modified in any way to eliminate impediments to the competitive deployment of these new technologies?

(f) Should the Commission adopt standards for any or all of these transmission media?

72. The Commission is also interested in technologies that will facilitate consumer access to the various distribution media and services they are expected to provide. To facilitate consumer needs in the video services area, the Commission established new cable-consumer equipment compatibility regulations, which include measures that assure improved compatibility between existing cable system equipment and consumer television equipment. They also include provisions for achieving more effective compatibility through new cable and consumer equipment.[121]

73. The Commission is aware that future cable services may require additional functionality for set-top boxes/terminals. In connection with these set-top boxes/terminals we invite comments concerning the following questions:

(a) What are the advantages and disadvantages of having subscribers own set-top boxes?

(b) What functionalities are included in current set-top boxes?

(c) To what extent can set-top boxes be purchased or leased from sources other than cable operators?

(d) To what extent do current market conditions, including Commission rules and regulations, inhibit the development of a competitive market for set-top boxes?

(e) Could a competitive retail market develop for consumer-owned set-top boxes? What is the potential size and structure of such a market? Should the Commission take steps to promote the development of a competitive retail market for set-top boxes that is separate from markets for the provision of video services?

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[121] *Implementation of Section 17 of the 1992 Cable Act (Compatibility Between Cable Systems and Consumer Electronics Equipment), First Report and Order*, ET Docket No. 93-7, 9 FCC Rcd 1981 (1994), *recon. pending*.

(f) We also seek comment about future cable and broadband services that are projected to require additional functionality for set-top boxes, and what steps, if any, the Commission might take to ensure development of a competitive market for such equipment.

V. MARKET STRUCTURE AND COMPETITION

74. The Commission intends to explore in the 1995 Competition Report the status of horizontal concentration and vertical integration in the cable television industry and market structure conditions, such as economies of scale and scope and extensive sunk cost investments, which may affect competition in markets for the delivery of video programming. The information that the Commission develops, both from publicly available sources and comments filed in response to this *NOI*, will be used to assess the performance of the market for delivered video programming and to analyze developments that have the potential to change that performance.

A. Horizontal Concentration in the Cable Industry

1. Horizontal Concentration in Local Markets

75. Horizontal concentration refers to the number and market shares of sellers in the video marketplace. Since the *1994 Competition Report*, DBS has become available nationwide. In most franchise areas, DBS and HSD are the only alternatives to the single cable operator as sources of multichannel video programming that are available to cable subscribers. Where other alternative multichannel video distributors exist, their market share is generally small. In the 1995 Competition Report, the Commission would like to identify as many markets as possible where cable operators face competition from MVPDs other than DBS operators or HSD package programmers, and develop a picture of what that competition is like. In particular, the Commission would like to obtain information concerning: (a) the identity and type of competitor; (b) when it entered; (c) the location of the market, including whether it is predominantly urban or rural; (d) an estimate of the subscribership and market share for the services of the competitor(s); (e) a description of competitive service offerings; (f) the prices charged for these offerings; and (g) the incumbent's competitive responses. In this regard, we invite comments on these issues from any parties with specific information on competition in local markets and any other matters that they feel are relevant to the issue of local competition.

76. The Commission also recognizes that the use of the franchise area as the relevant geographic area is subject to question. Some viewers within a franchise area may have access and subscribe to competitive alternatives such as services from SMATV, MMDS or DBS operators, but subscribing viewers may not be sufficient in number to meet the "effective competition" definition of the 1992 Cable Act. Nonetheless, cable service

providers may be competitively constrained by the availability of these services.[122] Competitors in local markets may also forego price competition, and instead focus their energies on differentiating their services from those of competitors, particularly in terms of the amount and types of programming offered or their responsiveness to customer needs and complaints. We seek comment on the foregoing.

2. *Horizontal Concentration Nationally*

77. Concentration at the industry level is also significant because the market for the delivery of video programming may be evolving toward a national market. In addition, the market for programming, in which producers supply their programming to distributors, appears to be national in scope. When it enacted Section 11 of the 1992 Cable Act, Congress recognized that there are beneficial and harmful effects from increased horizontal concentration.[123] In light of these effects, we seek to identify the share of cable subscribers nationwide served by each company or MSO. Large MSOs may be able to operate more efficiently in a variety of areas, including administration, distribution and procurement of programming. However, large MSOs also may be able to obtain concessions from cable programmers in exchange for carriage, which could discourage the entry of new programming services and adversely impact the diversity of programming available to consumers. In this *NOI*, we seek information that will allow us to continue to monitor industry concentration and to assess its effects on the video marketplace.[124]

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[122] *TEL-COM, INC. (Petition for Reconsideration of Certification of West Virginia Cable Television Advisory Board to regulate basic cable rates (WV0630 & WV0628)), Memorandum Opinion and Order,* 10 FCC Rcd 2114 (1995).

[123] *See* House Committee on Energy and Commerce, H.R. Rep. 623 ("House Report"), 102d Cong., 2nd Sess. at 42-43 (1992).

[124] In the 1992 Cable Act, Congress required the Commission to establish limits on the number of cable subscribers that an entity is authorized to reach through cable systems it owns, controls or in which it holds an attributable interest. Communications Act § 613(f)(1)(A), 47 U.S.C. § 533(f)(1)(A). To implement this requirement, the Commission established a 30% limit on the number of homes passed nationwide, or 35% if the additional systems are "minority-controlled," that any one entity can reach through its cable systems. *See Implementation of Sections 11 and 13 of the 1992 Cable Act, Second Report and Order*, MM Docket No. 92-264, 8 FCC Rcd 8565 (1993) ("*Subscriber and Channel Occupancy Limits Order*"), *recon. denied, Memorandum Opinion and Order on Reconsideration of the Second Report and Order*, FCC 95-147 (Apr. 5, 1995). Following a federal district court ruling that Section 11(c) of the 1992 Cable Act is unconstitutional, the Commission stayed enforcement of its horizontal ownership rules. *See Daniels Cablevision, Inc. v. United States*, 835 F. Supp. 1, 10 (D.D.C.), *appeal docketed and pending*, Civ. Act. No. 93-5290 (D.C. Cir. 1993).

78. In the *1994 Competition Report*, the Commission reported that there has been a moderate increase in the nationwide horizontal concentration of the cable industry since the issuance of the *1990 Cable Report*, as measured by the Herfindahl-Hirschman Index ("HHI"),[125] which is a standard measure of horizontal concentration.[126] Whether an HHI measurement, or any measure of concentration at the national level, is meaningful depends on the existence of a national cable market. As we discussed,[127] the relevant market for the purpose of analyzing competition in the cable industry is generally local, although there may be larger markets in the future, should other technologies become competitive. When examining issues involving cable programming, however, the relevant geographic market may well be national, and in that context, the national HHI provides more useful information.

79. The Commission found in the *1994 Competition Report* that the national market for the distribution of cable services was unconcentrated as of the end of the first quarter of 1994. The HHI for the industry as of March 31, 1994, was 898, which represented a modest increase since 1990.[128] Based on industry reports, TCI had the largest market share, 24.8%,[129] an increase of less than one percentage point since 1990. The top four companies still had 47% of the market, and the top ten 63%.

80. By the middle of September 1994, however, transactions had been announced that would significantly alter the market shares of those ten companies. We found that, if those transactions were consummated, the HHI would rise to approximately 1051.[130]

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[125] *See 1994 Competition Report*, 9 FCC Rcd at 7586-88, App. G, Tbls. 1 & 2.

[126] The HHI is calculated by summing the squares of the firms' percentage shares of the market. *1992 Horizontal Merger Guidelines*, ¶ 1.5, 4 Trade Reg Rep. (CCH) ¶ 13,104, at 20,573-4 to 20,573-6.

[127] *1994 Competition Report*, 9 FCC Rcd at 7467-68, ¶¶ 49-53.

[128] *Id.* at 7586, App. G, Tbl. 7.

[129] *Compare Subscriber and Channel Occupancy Limits Order*, 8 FCC Rcd at 8578, ¶ 27 n.40, which includes all systems in which TCI has an attributable interest.

[130] *1994 Competition Report*, 9 FCC Rcd at 7586, App. G, Tbl. 1A. These transactions were (1) TCI's acquisition of TeleCable (which had been the 18th largest MSO), which added over 700,000 subscribers to TCI's total; (2) Comcast's acquisition from Rogers Communications ("Rogers") of those systems in the United States that Rogers acquired from Maclean Hunter (which had been the 28th largest MSO) earlier this year; (3) Cox Cable Communications, Inc.'s acquisition of the cable systems of Times Mirror Company (which had been the 10th largest MSO); and

Standard antitrust analysis considers a market with an HHI between 1000 and 1800 to be "moderately concentrated."[131] As expected, those transactions were consummated. Moreover, several additional mergers have been announced that will result in further national concentration.[132]

81. In order to evaluate fully the effects of horizontal concentration nationally, we intend to update and expand on the information that was provided in the *1994 Competition Report*, including that which was presented in Appendix G.[133] We note that the *1994 Competition Report*'s analysis of these issues was based largely on public information, and we intend to use such information to the extent possible in the 1995 Competition Report. Commenters should nevertheless feel free to comment or provide any information on the foregoing that they wish to bring to our attention. In addition, we invite comments on any problems with the information presented last year, the method used to develop the information, or any additional information that the Commission should consider. In addition, we seek comment on the following:

(a) What are the reasons for the recent transactions that have resulted in the substantial increases in horizontal concentration nationally?

(b) What are the potential procompetitive and anticompetitive effects of horizontal concentration nationally?

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(4) Time Warner's consolidation in a joint venture of certain of its systems with those operated by Newhouse Broadcasting Corp. and Advanced Publications, Inc. (which were together the 7th largest MSO), and its purchase of Summit Communications Corporation (which had 160,000 subscribers). *Id.* at 7515, ¶ 145.

[131] 1992 *Horizontal Merger Guidelines*, ¶ 1.51, 4 Trade Reg. Rep. (CCH) ¶ 13,104, at 20,573-5 to 20,573-6.

[132] For example, Time Warner has announced agreements to acquire Cablevision Industries (which is the 8th largest MSO), and the KBLCOM systems from Houston Industries (which is the 22nd largest MSO). *See* Rich Brown, *Time Warner Eyes 2.5 Million Subs for $5 Billion*, Broadcasting & Cable, Jan. 23, 1995, at 4. Continental Cablevision has agreed to buy the cable systems of the Providence Journal (which is the 17th largest MSO). *See Cable Clustering Makes for Active Market*, Broadcasting and Cable, Mar. 6, 1995, at 53-54. Sammons Communications, Inc (which is the 14th largest MSO), has agreed to sell approximately two-thirds of its cable systems to Marcus Cable, and its remaining systems to Lenfest Group and TKR Cable, entities in which TCI has an ownership interest. *See* Rich Brown, *Sammons Bags $1 Billion*, Broadcasting & Cable, Mar. 13, 1995, at 11; *TCI Picks Up Cable Systems in N.J., Pa.*, Broadcasting & Cable, Mar. 27, 1995, at 14.

[133] *1994 Competition Report*, 9 FCC Rcd at 7586-603, App. G.

(c) To what extent does national concentration actually affect competition in markets for the delivery of video programming? Should the Commission be concerned about the increases in such concentration?

82. In addition to analyzing the concentration of the cable industry at the national level, we believe it is appropriate to evaluate the concentration of ownership on a regional basis. In the *1994 Competition Report*, the Commission wrote, "[c]oncentration in regional, or locally clustered, marketing areas may also be pro-competitive or anti-competitive."[134] We noted that "regional concentration may result in significant efficiencies," and "may also reflect the desire of cable operators to enter the telephone business, or it may reflect strategic decisions by cable operators to position themselves to compete against LECs that are poised to enter the market for the distribution of multichannel video programming."[135] These efficiencies from clustering were recognized by the Cable Services Bureau in its decision approving license transfers associated with Cox Cable Communications, Inc.'s acquisition of the cable systems of Times Mirror Company.[136] We invite comments concerning these and other possible procompetitive reasons for clustering.

83. On the other hand, we also noted that there may be "competitive risks associated with increased regional clustering of commonly owned cable systems."[137] In particular, we wrote that "[a] possible consequence of the accumulation of large regional clusters of interconnected cable systems is that such systems may send an entry-deterring signal to potential rivals."[138] The Commission did not resolve the issue, however, concluding instead that even this possible effect of clustering was not unambiguously anticompetitive because "there may exist complex tradeoffs between the potential consumer benefits that are provided by the sunk cost investments of incumbent cable systems and the potential consumer benefits that new entrants may offer consumers if not deterred by incumbent cable systems." We also invite comments concerning these and other possible competitive effects of clustering.

B. Vertical Integration in the Cable Industry

84. A cable company is vertically integrated if it is affiliated with an owner of an interest in any video programming that is carried by cable systems and other MVPDs.

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[134] *Id.* at 7518, ¶ 151.

[135] *Id.* at 7518-19, ¶¶ 152-53.

[136] *Cox Cable Communications Inc and Times Mirror Company (Transfer of Control), Memorandum Opinion and Order*, File No. CAR-44842-10, 10 FCC Rcd 1559 (CSB 1994).

[137] *1994 Competition Report*, 9 FCC Rcd at 7519, ¶ 154.

[138] *Id.* at 7519-20, ¶¶ 155.

Sections 11, 12 and 19 of the 1992 Cable Act were enacted to limit the ability of vertically integrated cable operators and other satellite programming vendors to inhibit competitive entry into the programming supply and distribution markets. These sections were enacted to ensure that vertically integrated cable operators do not engage in anticompetitive practices that limit the ability of unaffiliated video programming vendors to secure carriage on their cable systems. In addition, these provisions are intended to prevent MSOs from limiting competing multichannel video program distributors' access to the programming sources owned by those MSOs and to ensure that such programming is available on fair, nondiscriminatory terms.

85. Specifically, Section 11 of the 1992 Cable Act, in part, required the Commission to establish limits on the number of channels on a cable system that can be occupied by programming services in which the operator has an attributable interest.[139] To implement this provision, the Commission adopted "channel occupancy limits," under which a vertically integrated cable system may devote no more than 40% of its activated channels to national video programming services in which the system operator has an "attributable interest."[140]

86. Section 12 required that the Commission adopt rules governing program carriage agreements and related practices between cable operators and other MVPDs and video programming vendors.[141] We adopted rules that prohibit cable operators from coercing programming vendors into granting them exclusive distribution rights and from discriminating against program suppliers on the basis of the operator's ownership interests ("program carriage" rules).[142]

87. Section 19 prohibits unfair competitive practices by vertically integrated satellite cable programming vendors, satellite broadcast cable programming vendors, and

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[139] Communications Act § 613(f)(1)(B), 47 U.S.C. § 533(f)(1)(B).

[140] *See Subscriber and Channel Occupancy Order*. *See also* 47 C.F.R. §§ 76.501, 76.504. A cable operator may devote two additional channels or up to 45% of its channel capacity, whichever is greater, to the carriage of video programming owned by the cable operator or in which the operator has an attributable interest provided such video programming services are minority controlled.

[141] A video program vendor is defined as anyone engaged in the production, creation or wholesale distribution of video programming for sale. Communications Act § 616, 47 U.S.C. § 536.

[142] *See Implementation of Sections 12 and 19 of the 1992 Cable Act (Development of Competition and Diversity in Video Programming Distribution and Carriage), Second Report and Order*, MM Docket No. 92-265, 9 FCC Rcd 2642 (1993), *recon. granted, Memorandum Opinion and Order*, 9 FCC Rcd 4415. *See also* 47 C.F.R. §§ 76.1300-1302.

cable operators, including certain limits on exclusivity provisions in cable carriage agreements.[143] To implement this section of the 1992 Cable Act, the Commission adopted rules to prevent discriminatory behavior and restrict the types of exclusive contracts that may be entered into between cable operators and vertically integrated program vendors ("program access rules").[144]

88. In the 1995 Competition Report, the Commission intends to update the information presented in the *1994 Competition Report* relating to vertically integrated and unaffiliated programming services, and in particular the information in Appendix G. In last year's report, a significant amount of information concerning vertical integration was provided in comments filed by parties to the proceeding. Nonetheless, it appears that the Commission can rely to a certain extent on publicly available information. We invite comments on any problems with the information presented last year, the method used to develop the information, or any additional information that the Commission should consider. We also request comments and information concerning:

(a) The existing national programming services, and the extent to which they are affiliated with cable operators. In particular, the Commission would like to provide a description of the amount and type of interest, the date such interest was acquired, any changes since last year, and the percentage of ownership represented by each MSO's holdings for each programming service that is affiliated with cable interests;

(b) The national programming service launches that have occurred over the past year, and the extent to which those services are affiliated with cable system operators;

(c) The national programming services that have been announced for launch since last year, and to what extent they are affiliated with cable operators;

(d) The number of subscribers and number of cable systems served by individual programming networks;

(e) The audience ratings, primetime or all day parts, of national cable programming services;

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[143] Communications Act § 628, 47 U.S.C. § 548.

[144] *See Implementation of Sections 12 and 19 of the 1992 Cable Act (Development of Competition and Diversity in Video Programming and Carriage), First Report and Order*, MM Docket No. 92-265, 8 FCC Rcd 3359 (1993) *recon. denied in part*, 10 FCC Rcd 1902 (1994). *See also* 47 C.F.R. §§ 76.1000-76.1003.

(f) The ownership of national cable programming services by entities that are existing or potential competitors (e.g., broadcast networks) to cable systems.

89. The channel occupancy rules were intended to ensure that unaffiliated programmers have sufficient opportunity to distribute their programming through cable carriage by limiting the number of channels that can be dedicated to MSO-affiliated programming services.

(a) Has the ability of program vendors, both affiliated and unaffiliated, to secure carriage been affected by the channel occupancy rules? Have these rules led to greater channel availability so that unaffiliated programmers can reach the desired number of subscribers?

(b) What effect have the occupancy limits had on the ability of programmers, affiliated and unaffiliated, to launch new programming services? What is the market penetration needed to launch a new programming service? Do the channel occupancy rules allow sufficient channel capacity for an unaffiliated programmer to receive carriage by enough cable systems to successfully launch a new service?

(c) Has MSO investment in programming services been affected by these rules?

90. The 1992 Cable Act attempted to address difficulties that non-cable MVPDs faced in acquiring programming services on nondiscriminatory terms.[145] We request comment on whether the program access rules and our decisions in response to program access complaints have served their intended purpose to alleviate this problem.[146] The Commission requests comments concerning the following questions:

(a) How have the program access rules affected the number of and competition among MVPDs?

(b) Are MVPDs now able to get programming that was previously unavailable?

(c) Is this programming available on nondiscriminatory terms? Have the program access rules had an effect on the price and terms offered to alternative MVPDs?

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[145] 1992 Cable Act, sec. 2(a)(5). House Report at 40. Senate Committee on Commerce, Science, and Transportation, S. Rep. No. 92 ("Senate Report"), 102d Cong., 1st Sess. at 26 (1991).

[146] As of May 4, 1995, the Commission had resolved 12 program access cases and 7 program access cases were pending.

(d) Are there differences in the treatment of the various distribution technologies with respect to access? For example, are there differences between wireless cable, DBS and HSDs? Do differences exist in rural versus urban areas?

(e) Has our complaint process worked to ensure that programming is available to alternative MVPDs?

(f) Has investment in, and the development of, new programming ventures been adversely affected by the program access rules?

(g) Should the program access rules apply to LEC access to cable programming when a LEC is offering multichannel video programming service in competition with a franchised cable system, whether through the VDT framework or a franchised overbuilt cable system? Should the program access rules apply to LECs' programming in such situations?

(h) Should the program access rules be extended to non-vertically integrated program providers?

(i) Have the nondiscriminatory rate provisions (e.g., the volume discount provision) of the program access rules affected the competitive viability of small systems and small system operators?

91. Furthermore, we seek comment on whether the program carriage rules adopted to implement Section 12 of the 1992 Cable Act have served to diminish anticompetitive practices. Are the rules working to ensure that cable operators do not take unfair advantage of programming vendors as a condition of carriage agreements? Have negotiations for carriage agreements changed? Are there other practices of which the Commission should be aware regarding program supply?

C. Market Performance Indicators

92. In the *1994 Competition Report*, the Commission looked at several market performance indicators.[147] Those indicators included: (a) q ratio measurements; (b) evidence concerning price changes in local markets following the entry of overbuilders; (c) competitive price differentials that had been calculated in prior Commission orders; (d) changes in industry-wide demand; (e) changes in industry-wide revenue; (f) increases in availability of programming; and (g) increases in industry-wide capital investment. We invite comment concerning the use of these market performance indicators, any updates of these indicators, the conclusions that were drawn in the *1994 Competition Report*, and the

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[147] *1994 Competition Report*, 9 FCC Rcd at 7542-50, ¶¶ 204-27; 9 FCC Rcd at 7604-31, App. H.

appropriate method or methods for assessing market performance.

D. Market Structure Characteristics that May Increase Concentration or Pose Impediments to Competition

93. The *1994 Competition Report* considered economies of scale and scope in cable.[148] Economies of scale exist when the average cost of production decreases as the quantity of output produced by a firm increases. For example, economies of scale exist in cable if a single operator can produce cable services at lower cost than two operators could in the same market. In that case, higher concentration might result from the lower costs of production that would be achieved. Economies of scope exist when two products can be jointly produced at lower cost than if they were produced separately. Thus, economies of scope may exist in video distribution and telephony if it is more efficient to simultaneously provide telephone and multichannel video programming services over the same distribution plant than it is to provide them separately. We invite comments concerning economies of scale and economies of scope in the cable industry.

94. The presence of barriers to entry is one of the most important obstacles to the development of a competitive market.[149] In the *1994 Competition Report*, the Commission looked at regulatory and technological impediments to entry in markets for the delivery of multichannel video programming, including the Communications Act's definition of a cable system, state laws impeding competitive entry, pole attachment issues, and the introduction of digital compression and other technologies.[150] We invite comments concerning these and any other impediments to competitive entry into markets for the delivery of multichannel video programming. We also invite comments on the overall magnitude of barriers to entry into these markets, and actions the Commission should take to reduce or eliminate barriers to entry.

95. In the *1994 Competition Report,* the Commission considered the presence of substantial sunk cost investments in the cable industry, and their effect on incentives for incumbent MVPDs to engage in strategic behavior designed to protect those investments.[151] Among the kinds of strategic behavior that could deter entry are controlling access to program supply, using litigation to delay or prevent entry, pricing services below incremental costs, and foreclosing access to customers through anticompetitive exclusive dealing. We invite comments concerning that analysis and the implications of sunk costs for competitive

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[148] *Id.* at 7616-27, App. H., ¶¶ 20-44.

[149] *See, e.g., McGahee v. Northern Propane Gas Co.*, 858 F.2nd 1487 (11th Cir. 1988), *cert. denied*, 490 U.S. 1084 (1989).

[150] *1994 Competition Report*, 9 FCC Rcd at 7554-6, ¶¶ 239-245.

[151] *Id.* at 7550-54, ¶¶ 229-238.

entry into markets for the delivery of multichannel video programming.

VI. RECOMMENDATIONS FOR PROMOTING COMPETITION IN THE MARKET FOR DELIVERED VIDEO PROGRAMMING

96. The legislative history of Section 19 of the 1992 Cable Act states that Congress expected the Commission to address and resolve problems regarding "unreasonable cable industry practices, including restricting the availability of programming and charging discriminatory prices to non-cable technologies."[152] Congress also mandated that the Commission encourage arrangements which promote new technologies and extend programming to areas not served by cable.[153] Thus, commenters are asked to consider whether there are any actions that the Commission should take to foster competition in the market for video programming delivery. In light of the current state of competition and our desire to promote additional competition, we request that parties recommend rules or policies, if any, that should be adopted, amended or eliminated to accomplish this goal. Parties submitting recommendations should explain how their proposals would increase competition in the provision of video programming to consumers or enhance the program distribution market. We also want to consider any other effects of such proposals on the cable industry.

VII. PROCEDURAL MATTERS

97. This NOI is issued pursuant to authority contained in Sections 4(i), 4(j), 403 and 628(g) of the Communications Act of 1934, as amended. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§ 1.415 and 1.419, interested parties may file comments on or before June 30, 1995, and reply comments on or before July 28, 1995. To file formally in this proceeding, participants must file an original and four copies of all comments, reply comments and supporting comments. If participants want each Commissioner to receive a personal copy of their comments, an original plus ten copies must be filed. Comments and reply comments should be sent to the Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center (Room 239) of the Federal Communications Commission, 1919 M Street, N.W., Washington, D.C. 20554.

98. There are no ex parte or disclosure requirements applicable to this proceeding pursuant to 47 C.F.R. § 1.1204(a)(4).

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[152] House Committee on Energy and Commerce, H.R. Rep. No. 862 ("Conference Report"), 102d Cong., 2d Sess. at 93 (1992).

[153] *Id.*

99. Further information on this proceeding may be obtained by contacting Marcia Glauberman, Jonathan Ogur or Edward Hearst in the Cable Services Bureau at (202) 416-0800 or Martin L. Stern or Jeffrey Lanning in the Office of the General Counsel at (202) 416-0865.

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton
Acting Secretary