is improper because the present system is configured to provide only video and existing narrowband services. In order to provide "other" broadband services, upon which Bell Atlantic now foists the brunt of its video dialtone costs, its system will require additional equipment and costs.[55] The benefit to the consumers of Bell Atlantic's efforts to upgrade its network are thus entirely speculative.

Ultimately, the Commission must not overlook the fact that in its tariff workpapers Bell Atlantic projected that during a representative year demand would only exist for 262 channels on its 383 channel system, and then, using that relatively objective projection, Bell Atlantic calculated a price per channel that would not fully recover all the costs of the system. Because Bell Atlantic's methodology will not lead to the full recovery of the costs of the system, even assuming for argument that Bell Atlantic has correctly included all costs, the Commission must find Bell Atlantic's rates predatory and unlawful, and reject or modify them.

IV. BELL ATLANTIC HAS UNREASONABLY DISCRIMINATED IN ITS FAVOR IN ITS ALLOCATION OF POLE AND CONDUIT COSTS

In the Suspension Order, the Bureau stated that the amount a LEC charges its video dialtone service for pole attachments and conduit space is a critical issue for

[55] Indeed, Bell Atlantic "has been evasive and vague about the nature of such services, and why they cannot be adequately provided on a new telephone stand-alone network or, indeed, why they cannot be provided even on the existing telephone network. Moreover, these new services would themselves involve additional costs, as well as hoped-for revenues -- a subject about which Bell Atlantic is totally silent." Johnson Decl. at 15.

determining whether video dialtone rates are lawful, as it would be unfair for LEC to charge its video dialtone system less than it charges competing cable operators.[56] In the Investigation Order, therefore, the Bureau instructed Bell Atlantic to provide the Commission with the rates it charges others for pole attachments and conduit space, and the rates it has imputed to its video dialtone service.[57]

In response, Bell Atlantic initially asserts that what third parties pay Bell Atlantic is irrelevant and inappropriate for comparison, an argument already rejected by the Bureau.[58] Bell Atlantic then goes on to explain that it has assessed its system pole attachment and conduit space costs using a pole factor based on the total pole investment to the total aerial plant investment and a conduit factor "developed in the same manner as the pole factor described above."[59] Bell Atlantic ultimately asserts that it has imputed to itself a pole attachment rate substantially higher than the one it charges third parties and a conduit charge that is "comparable" to that charged to third parties.[60] In spite of Bell Atlantic's assertions and presentations, however, there are no less than five serious questions relating to Bell Atlantic's pole and conduit charges.

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[56] Suspension Order, ¶ 57.

[57] Investigation Order, ¶ 41.

[58] Direct Case at 80; Suspension Order, ¶ 57.

[59] Direct Case at 81-82.

[60] Direct Case at 80.

A. The Calculation Of Bell Atlantic's Pole And Conduit Factors Is Unclear And Unverifiable

First, it is impossible from the data Bell Atlantic has provided the Commission in this filing to determine the propriety of Bell Atlantic's pole and conduit factors. Regarding its conduit factor, Bell Atlantic fails to even give a cogent description of how its factor was calculated. Its statement that its conduit factor was "developed in the same manner as the pole factor described above" is, at best, confusing given that the pole factor was calculated using the ratio of total pole investment to total *aerial* investment. Clearly, there is no relation between total aerial investment and conduit space. Presumably, therefore, Bell Atlantic means that its conduit factor was calculated using the ratio of total conduit to total underground investment; but there is no way to confirm that.

In addition, it is impossible to determine whether Bell Atlantic has correctly calculated its factor, as the data Bell Atlantic provides is merely the end-result of its calculations for each video dialtone system sub-element, and Bell Atlantic does not indicate whether the "total" investments to which it refers are from the entire state or only Dover Township. In Attachment H(1), Bell Atlantic provides a table that summarizes the pole investment for particular elements of the Dover system. The data included in the table, however, is simply the end result of Bell Atlantic's application of its pole and conduit factors, which, when added together produce what Bell Atlantic asserts is the total investment per potential subscriber in Dover and per pole in Dover. These end-result figures are meaningless, as they provide neither the Commission nor interested parties the information necessary to verify Bell Atlantic's calculations and its factor. Indeed, as described below, the data in Attachment H(1) is misleading.

B. Bell Atlantic Inexplicably Applied Different Pole And Conduit Factors To Broadcast Services And Video Access Link Services

Second, in Issue H of its Direct Case, Bell Atlantic never explicitly states the pole factor or conduit factor it used. Further, Bell Atlantic never indicates that it used anything other than the same pole factor for all services. In attachment 7 of Attachment Pre(1) of its Direct Case, however, Bell Atlantic discloses that it used a pole factor of .1170 for Broadcast and Narrowcast services and a pole factor of .1242 for Direct Access Connection, Serving Wire Center Connection, and Messaging Port services.[61] Similarly, Bell Atlantic admits in Attachment Pre(1) that it used different conduit factors for Broadcast and Narrowcast services versus other services.[62] Bell Atlantic, however, never provides a justification for these different factors. Yet, the difference undermines Atlantic's factors and indicates that they are unreasonable.

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[61] Direct Case, Attachment Pre(1) at attachment 7.

[62] Id.

C. Bell Atlantic's Calculation Of The Per Pole Investment Is Misleading

Third, in Attachment H(1), Bell Atlantic purports to provide the per pole and per conduit foot investment for broadcast service. Bell Atlantic's data is misleading, however, as it leads to an inflated per pole cost. When analyzing whether Bell Atlantic has discriminated in its favor against cable operators, only the cost imputed to video is relevant. Comparing the data provided in Attachment H(1) to the data provided by Bell Atlantic in Attachment C(1), it becomes clear that the figures Bell Atlantic provides under the heading "INVESTMENT PER POT SUB" in Attachment H(1) are actually the total combined video and telephony investments per potential subscriber.[63] For example, in Attachment H(1), Bell Atlantic lists the investment per potential subscriber for broadcast service under HDT to ONU facilities as $19.74. Reference to Attachment C(1), page 2 of 7, however, demonstrates that $19.74 is the *shared* investment per potential subscriber. Bell Atlantic ultimately only assigns $6.23 per potential subscriber to video for poles under HDT to ONU facilities.[64] The figures in Attachment H(1) are substantially overstated and misleading, therefore, because they create higher per pole and per conduit foot figures than the per pole and per conduit foot amounts actually allocated to video, thus overstating the cost Bell Atlantic has imputed to its video rates.

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[63] Compare Attachment H(1) with Attachment C(1) pp. 2-3 column A.

[64] Direct Case, Attachment C(1), page 2 of 7, column E, line 43.

D. The Per Conduit Foot Cost Imputed To Bell Atlantic's Video Dialtone System Is Not "Comparable" To The Rate Charged Cable Operators

Fourth, even assuming for the sake of argument that Bell Atlantic has not overstated the per conduit foot investment imputed to its video dialtone system, the conduit rate it imputed to itself would still not be "comparable" to the rate Bell Atlantic charges cable operators. In its Direct Case, Bell Atlantic asserts that it charges cable operators a monthly rate of $0.0019 per fiber foot of conduit, and that it has imputed to its video dialtone system a rate of $0.0013 per fiber foot of conduit.[65] While on its face Bell Atlantic's rate to cable operators may appear insignificantly higher per fiber foot of conduit, in reality, Bell Atlantic imposes a substantially higher cost on cable operators. A conduit "sheath" can contain up to 216 fibers.[66] And as Bell Atlantic admits, it requires cable operators to lease an entire sheath.[67] Accordingly, while the monthly per fiber foot of conduit rate may be $0.0019, cable operators must pay 216 times that much, or $.417 per foot per month.[68] In comparison to its treatment of cable operators, Bell Atlantic is not requiring its video dialtone service to lease an entire sheath. Accordingly, the conduit cost imputed to Bell Atlantic's video dialtone system is substantially less than that imposed on cable operators.

[65] Direct Case at 82.

[66] Direct Case at 82.

[67] Direct Case at 82.

[68] Direct Case at 82.

E. Bell Atlantic's Video Dialtone System's Use Of Pole Attachments Is Not Subject To The Extensive Conditions Placed On Cable Operators

Finally, even if Bell Atlantic were imputing to its video dialtone system pole and conduit rates equivalent to those Bell Atlantic charges cable operators, it would still be unreasonably discriminating in its favor, as the attachments for Bell Atlantic's video dialtone system will not be subject to the extensive conditions placed on cable operators' use of poles and conduits. In Attachment H(1) of its Direct Case, Bell Atlantic includes a copy of the pole and conduit license agreement it requires cable operators to enter before they can use Bell Atlantic's poles and conduits. That agreement, however, imposes substantial conditions and burdens on cable operators' attachment to and use of Bell Atlantic's essential facilities. For example, Article VII of the agreement states that:

> (c) should [Bell Atlantic], or another utility with whom it then has a joint use agreement, need for its own service requirements the space occupied by [the cable operator's] attachments on any of [Bell Atlantic's] poles, [cable operator] will be notified that [cable operator] shall, at [cable operator's] option, either surrender its license for that pole, and, at its own expense, vacate the space by removing its attachments, or it shall authorize [Bell Atlantic] to replace the poles *at the expense of [the cable operator]*. . . .[69]

Similarly, Article XIII of the agreement requires cable operators to purchase and maintain substantial amounts of insurance, specifically related to the use of Bell Atlantic's poles and conduits. Bell Atlantic does not appear to be imposing any such costs on its video dialtone

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[69] Direct Case, Attachment H(1), p. 9 of 42 (emphasis added). Surely, Bell Atlantic could not use its preemptive rights to require cable operators to move or pay for rearrangement of the poles so that Bell Atlantic can install its VDT facilities. Nonetheless, the pre-emptible nature of cable operators' pole attachment rights puts the incumbent cable operator at a relative disadvantage.

services. Accordingly, Bell Atlantic is unreasonably discriminating in favor of its video dialtone service in the terms and conditions of pole and conduit use.

V. BELL ATLANTIC HAS FAILED TO JUSTIFY THE UNREASONABLY DISCRIMINATORY TERMS AND CONDITIONS OF ITS TARIFF

In response to points raised by parties in Petitions to Reject, in the Suspension Order, the Bureau identified several terms in Bell Atlantic's tariff that appeared unreasonable.[70] For example, the Bureau recognized that Bell Atlantic's interest rate policies — *i.e.* the interest rate Bell Atlantic imposes for late payments and Bell Atlantic's failure to pay interest on moneys collected for channel reservations — and its three month minimum service requirement appeared unreasonably discriminatory.[71] Accordingly, in the Investigation Order, the Bureau instructed Bell Atlantic to justify the interest rate it proposes to charge for late payments, justify why it is reasonable for it to charge others interest for late payments without paying interest for money held for channel reservations, and demonstrate how its minimum three month service requirement comports with the Commission's public interest goals.[72] In its Direct Case, however, Bell Atlantic simply restates its previous arguments to the Bureau. The Commission, therefore, should revoke or modify the interest rate and minimum service terms of Bell Atlantic's tariff.

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[70] See, e.g., Suspension Order, ¶¶ 71-72, 75.

[71] Id.

[72] Investigation Order, ¶¶ 53, 54, 57.

A. Bell Atlantic Unreasonably Discriminates In Interest Charges For Late Payments

In Issue M in the Investigation Order, the Bureau "direct[ed] Bell Atlantic to justify why it is reasonable to charge access service customers less for late payments than video dialtone customers."[73] In response, Bell Atlantic states that the 11.25% interest rate it proposes to charge video dialtone customers for late payments is designed to ensure that Bell Atlantic recovers the cost of capital, and that the 9% rate it charges access customers is below the cost of capital.[74] Bell Atlantic's response is meaningless, however, as it merely states the origins of the 11.25% and 9% rates, without justification. Indeed, Bell Atlantic does not provide any arguments justifying the differential treatment.

B. Bell Atlantic's Failure To Pay Interest On Deposits It Holds Under The Channel Reservation Deposit Is Unreasonable

In the Investigation Order, the Bureau instructed Bell Atlantic to "explain to the Commission why it is reasonable for Bell Atlantic to hold over $500,000 from programmers, interest free, for what may be as long as 8-9 months."[75] In response, Bell Atlantic asserts that programmer-customers were not required to pay such a deposit, and that customers were simply agreeing to prepay in exchange for the benefit of certainty in obtaining channel capacity.[76] Bell Atlantic's assertion is insufficient, however, because as a

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[73] Investigation Order, ¶ 53.

[74] Direct Case at 103.

[75] Investigation Order, ¶ 54.

[76] Direct Case at 105.

practical matter, programmer-customers recognized from Bell Atlantic's filings that Bell Atlantic was predisposed to allocate substantial amounts of channel capacity to Bell Atlantic-favored programmers. Accordingly, customer-programmers were forced to presubscribe.

Moreover, regardless of whether programmers were actually or constructively required to presubscribe, it is bad public policy for the Commission to allow Bell Atlantic to obtain interest free loans from its potential subscribers. The burden on programmers of having large sums of cash rendered unavailable for nearly a year is substantial. Indeed, it acts as an effective barrier to entry for small, niche programmers. Further, it was probably unclear to most programmers that their deposits would be held for nine months. Indeed, given the delays in construction and service, it appears the payments will now likely be held for a year. Any delay of the introduction of service at this point has been caused by Bell Atlantic, given that its tariff went into effect in June. Accordingly, at a minimum, Bell Atlantic should be required to pay interest for any delay beyond the effective date of its tariff.[77]

C. Bell Atlantic's Three Month Minimum Service Requirement Is Contrary To The Commission's Public Interest Goals And Unreasonably Discriminates Against Small Or Part-time Programmers

A fundamental basis for the Commission's conclusion that video dialtone will serve the public interest is that video dialtone would increase the diversity of video

[77] Ultimately, NJCTA believes that Bell Atlantic should be required to pay itnerest on the payments held for over 30 or 60 days.

programming available to the public.[78] In the Ameritech Video Dialtone Order, the Commission held that "[t]he ability of programmer-customers to provide programming on a less than full-time basis . . . is an essential means of achieving that goal."[79] In the Investigation Order, the Bureau recognized that Bell Atlantic's three month minimum service requirement would cause "harm to part-time or one-time users. . . ."[80] Accordingly, the Bureau instructed Bell Atlantic to "justify why a 3-month minimum service agreement is necessary and reasonable," and "explain why the public would not benefit from providing part-time and one-time users with access to the video dialtone platform. . . ."[81]

In response, Bell Atlantic asserts that its three month minimum service agreement provision is reasonable because it avoids churn of programmer-customers, allows programmers to initiate and market a new service, making a burdensome, long-term commitment, and because the resale market will accommodate shorter term arrangements.[82] Essentially, therefore, Bell Atlantic merely repeats an argument already rejected by the Commission (*i.e.* the churn argument), asserts that three months is better than some longer commitment requirement, and asserts that someone other than Bell Atlantic should deal with short-term programmers. Clearly, Bell Atlantic's responses are unacceptable.

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[78] Telephone Company-Cable Television Cross-Ownership Rules, Sections 63.54-63.58, Second Report and Order, 7 FCC Rcd. 5781, ¶ 1 (1992).

[79] Ameritech Operating Cos., Order and Authorization, 10 FCC Rcd. 4101, 4118 (1995).

[80] Investigation Order, ¶ 56.

[81] Investigation Order, ¶ 57.

[82] Direct Case at 109.

First, the Commission has already rejected the argument that programmer-customer churn necessitates minimum service requirements. Second, asserting that three months is less burdensome than six months or a year, does not make three months reasonable. Third, the mere possibility that a resale market will develop to accommodate part-time programmers does not advance the Commission's public interest goal of increasing diversity of programming. In order for its video dialtone system to be in the public interest, Bell Atlantic must be required to offer its common carrier service to any and all part-time or one-time programmers who can pay to lease the capacity.[83] Ultimately, Bell Atlantic's minimum service requirement is demonstrated to be unreasonable because Bell Atlantic fails to provide any evidence indicating that the cost of leasing capacity for a term shorter than three months requires such a minimum term. Accordingly, the Commission should reject Bell Atlantic's three month minimum service requirement and impose a reasonable term.

VI. BELL ATLANTIC'S INCONSISTENT DEFINITION OF "JOINT USE" OR "SHARED" EQUIPMENT INDICATES THAT IT HAS NOT PROPERLY ASSIGNED AND ALLOCATED COSTS

At points throughout its Direct Case, Bell Atlantic provides lists of the equipment in its system that is "shared" (or "jointly used") by both telephony and video. Bell

[83] NJCTA believes that a minimum leasing term of one day would be reasonable. In addition, Bell Atlantic's assertion that its three month term is reasonable because cable operators and programmers generally enter affiliation agreements for three years is unsupported and irrelevant. Bell Atlantic cites no support for its assertion regarding the three year term of affiliation agreements between cable operators and programmers. Moreover, the business arrangements between cable operators and programmers are irrelevant to the analysis of Bell Atlantic's tariff terms since Bell Atlantic's video dialtone system is a common carrier system, whose public interest foundation is based largely on the fact that it is open to all.

Atlantic's definitions of the equipment categorized as shared, however, differ substantially. These inconsistent categorization of "shared" equipment undermines the validity of Bell Atlantic's cost calculations and ultimately its rates.

In A(7) of its Direct Case, Bell Atlantic states that the equipment in its Dover system that is jointly used to provide both video dialtone and telephony services are: (1) the Host Digital Terminals ("HDT"), (2) the Optical Network Units ("ONU"), (3) fiber facilities, (4) fiber terminating equipment, (5) drops, and (6) network interface devices.[84] In B(5), Bell Atlantic states that "Attachment B(5) is a listing of the video dialtone system's shared equipment by component subsystem. . . ."[85] Attachment B(5), however, lists as shared equipment: (1) the HDT, and (2) the ONU (including the "Quad Current Limiter").[86] In B(6), Bell Atlantic lists as the "shared" equipment in its system: (1) the HDT, (2) the ONU, (3) the Quad Current Limiter, and (4) drop facilities (but not coaxial cable drops).[87] Curiously, Bell Atlantic states in B(6) that "fiver connections from the video distribution office to the system's host digital terminals" are video only items.[88] That statement is inconsistent with Bell Atlantic's assertion in A(7) that fiber facilities are shared by video and telephony. In Attachment Pre(1), Bell Atlantic provides yet a different list of the shared equipment in its

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[84] Direct Case at 24.

[85] Directd Case at 34.

[86] Direct Case, Attachment B(5).

[87] Direct Case at 35-36.

[88] Direct Case at 36.

system. In Attachment Pre(1), page 3-8, Bell Atlantic states that the shared equipment includes: (1) HDT, (2) Quad Current Limiter, (3) fiber (and associated pole and conduit facilities) from HDT to ONU, (4) ONU, (5) coaxial and twisted pair drops, (6) Network Interface Device, and (7) land, buildings, power and common equipment.[89]

As these examples demonstrate, in one document, Bell Atlantic has asserted no less than four different lists of purportedly shared equipment comprising its system. Such inconsistency undermines any confidence in Bell Atlantic's already questionable cost allocations, and mandates that the Commission reject Bell Atlantic's rates as lacking supported and reasonable cost calculations.

CONCLUSION

Bell Atlantic's response to the Commission's Investigation Order is deficient in nearly all substantive respects. The Commission cannot condone cross-subsidy or otherwise allow direct and incremental costs of the proposed video dialtone service to be assigned to telephony. Although Bell Atlantic believes that market conditions may not permit the recovery of all its costs, there was never any question from the outset that the Commission would not condone any under-allocation or cross-subsidy. Accordingly, if Bell Atlantic wants to play in the video game, it must play by the rules. While the cable industry is clearly aware of the telcos' appetite for video services, speculation and unsubstantiated statements concerning provision of undefined and unknown narrowband and telephony services do not

[89] Direct Case, Attachment Pre(1) at 3-8 through 3-10.

support the massive subsidy Bell Atlantic believes necessary for rolling out its broadband network to compete with cable operators. The Commission sould now, after investigation, reject Bell Atlantic's tariff, suspend its operation, and require Bell Atlantic to specifically identify and allocate its costs to support realistic tariff rates.

Respectfully submitted,

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November 30, 1995

ATTACHMENT A
DECLARATION OF
LELAND JOHNSON, Ph.D.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
The Bell Atlantic Telephone Companies	)	Transmittal Nos. 741, 786 Amended
Tariff FCC No. 10	)	
	)	CC Docket No. 95-145
Video Dialtone Services	)	

DECLARATION OF LELAND L. JOHNSON, Ph.D.

I, Leland L. Johnson, declare the following:

I am a consultant in telecommunications economics residing in Woodland Hills, California. I retired in March 1993 from the RAND Corporation, Santa Monica, California, where I had been employed, with two interruptions for government service, since 1957. I received my Ph.D. in Economics from Yale University in 1957. During 1978-1979, I was Associate Administrator for Policy Analysis and Development in the National Telecommunications and Information Administration in Washington D.C. During 1967-1968, I was Research Director of the President's Task Force on Communications Policy in Washington. In these capacities, I have written widely on issues of monopoly and competition, government regulation, and appropriate public policy. In recent years, I have focused on telephone company entry into video, including effects of advances in fiber optics and other technologies. I have presented numerous seminars and briefings, and have testified before Congressional subcommittees and government administrative agencies. I am author of the book *Toward Competition in Cable Television* published in 1994. An attached resume describes my background in further detail.

I have been asked by the National Cable Television Association, Adelphia Communications Corporation, and the New Jersey Cable Television Association, to evaluate Bell Atlantic's video dialtone tariff filed for Dover Township, New Jersey. This assignment follows my earlier evaluation of New Jersey Bell's Section 214 application for video dialtone service in Dover Township.[1]

Overall Evaluation

Observers may be startled to learn that Bell Atlantic plans to replace existing phone lines in Dover Township with a new fiber network to carry both telephone and video dialtone signals, while charging off two-thirds of the whole investment to telephony. These observers might conclude that Bell Atlantic is seeking to subsidize its entry into video, in competition with cable operators and other suppliers, with revenues from its monopoly local telephone ratepayers. They are right. Even if total investment and recurring expenses are accurately depicted in Bell Atlantic's dozens of worksheets in support of its video dialtone tariff, and even if video dialtone revenues are sufficient to cover costs now assigned to video dialtone, a massive threat of cross-subsidy remains.

Of overarching importance are four considerations: first, Bell Atlantic has assigned to the narrowband or "voice" portion of the new network an investment far above that of a stand-alone network with the same narrowband capability, while video dialtone is assigned far less than its true cost. Telephone users, paying higher prices to cover the greater cost assigned to them, will be forced to subsidize video dialtone.

[1] Affidavit, W-P-C 6840, February 12, 1993; Declaration W-P-C 6838, 6840, September 29, 1993 (both on behalf of New Jersey Cable Television Association).

This point, previously voiced in this proceeding, has met with astonishingly weak response from Bell Atlantic. In vague and evasive language, it maintains that the narrowband portion of the integrated network has greater capability than a telephone stand-alone network and that, therefore, the greater cost assignment to telephony on the integrated network is warranted. I conclude that costs should be reassigned, with at least twice as much investment assigned to video dialtone as the amount now reflected in Bell Atlantic's video dialtone tariff.

Second, company overhead, which runs to about 65 percent of direct costs, is, incredibly, treated by Bell Atlantic as a fixed cost. Thus, any contribution to overhead made by video dialtone is depicted as reducing the overhead on other services. In fact, overhead is a variable cost, a portion of which must be assigned to video dialtone as an incremental cost -- no different in terms of cost causation from the estimation of other video dialtone incremental costs in Bell Atlantic's worksheets. Consequently, video dialtone should take approximately a 65 percent overhead loading, rather than the 20 percent reflected in Bell Atlantic's tariff. Bell Atlantic resists charging the full 65 percent loading because "market conditions" might not permit the recovery of such a large mark-up. But this is only a way of saying that by pricing below incremental cost, which properly includes a 65 percent overhead component, the company, indeed, intends to subsidize video dialtone.

Third, as a consequence of the preceding two factors, I conclude that Bell Atlantic's tariff rates for Broadcast Channel Service, both month-to-month and five-year contract, would have to be more than doubled to cover actual incremental cost plus the share of fixed common cost computed on the basis of Bell Atlantic's methodology. Moreover, the rate required to cover incremental cost alone for month-to-month and five-year service is at least 75 percent and 83 percent above the respective tariff rates set by Bell Atlantic for the two services. Thus, the Company's rates fall far below the level required to cover the incremental cost of video dialtone -- let alone any "reasonable" allocation of fixed common costs.

Fourth, in response to all such objections, Bell Atlantic flatly claims that the presence of price caps for telephony, by decoupling prices from costs, will render impossible the raising of telephone prices to provide any subsidy for video dialtone. Again, Bell Atlantic is wrong. By no stretch of the imagination can the New Jersey price cap regime (or, for that matter, the Commission's) be regarded as decoupling prices from costs:

- The New Jersey plan stipulates that the company will <u>not</u> be required to reduce real rates during any year in which the average intrastate rate of return on equity for its rate regulated services for the applicable twelve-month period falls below 11.7 percent. Consequently, if shifting video dialtone costs onto local telephony reduces the return to below 11.7 percent, the company can pass these costs onto local subscribers by denying a rate <u>decrease</u> to which they otherwise would have been entitled.
- If the company's intrastate return on equity exceeds 13.7 percent, the excess earnings are to be shared equally between the company and its customers (most likely by appropriate price reductions or monetary refunds). Consequently, by shifting video costs onto telephony, the company may avoid triggering this sharing provision, again denying customers benefits to which they otherwise would be entitled.
- The price cap plan expires at the end of 1999. Consequently, excessive video costs shifted to telephony during the next few years will provide the basis for a subsequent lower productivity factor than would exist in the absence of

video dialtone. In this event, telephone customers will enjoy smaller real rate decreases after 1999 than otherwise.

To support these conclusions, I focus on four topics:

- Stand-alone telephony, as a baseline for cost reassignment.
- The appropriate treatment of overhead costs.
- The failure of tariff rates to cover cost.
- The inadequacy of price caps as a safeguard against cross-subsidization.

I conclude with a brief discussion of the appropriate course for Commission action.

Stand-Alone Telephony as a Baseline for Cost Reassignment

Bell Atlantic estimates a total construction cost of the integrated network of $68.4 million,[2] or $1,785 for each of the 38,319 potential subscribers. The amount of $594, or 33 percent of the $1,785 total, is to be charged to video, and $1,191, or 67 percent, to telephony (excluding switching).[3] In light of these numbers, let us consider four illustrative alternative scenarios.

Scenario 1. Suppose that the existing telephone network would be retained if the new network were not built, with the existing network having the same economic lifespan and annual recurring costs as the new one. Suppose, further, that the new network has no additional narrowband capability beyond the existing one. Thus, for narrowband purposes, the new network is purely duplicative of the existing one, whose investment costs are sunk. In this case, the entire amount of $1,785 per potential subscriber is the true incremental cost

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[2] Bell Atlantic Direct Case, Amendment to the Bell Atlantic Telephone Companies Tariff No. 10, Video Dialtone Service, Attach. A(2) at 1.

[3] Id.; Bell Atlantic Tariff F.C.C. No. 10, Transmittal No. 741, January 27, 1995, Workpaper 5-3, 5-4.

of video, because the addition of video "causes" the whole investment. Thus, the appropriate charge to video is three times the amount ($594) reflected in Bell Atlantic's tariff.

Scenario 2. The existing telephone network is retained in the absence of the new integrated network, but upgrades are needed for expanded capabilities. The cost of such upgrades vary, of course, depending on the characteristics of existing facilities and the nature of expanded capabilities. As one piece of evidence, a recent New England Telephone cost study reports the incremental cost for upgrading the existing telephone network at about $308 per access line (excluding local switching).[4] Let us assume that an upgraded stand-alone system for Dover has the same narrowband capability as the video dialtone network, involves $308 investment per potential subscriber, and has the same recurring expenses as those of the telephone portion of the proposed integrated network. In this case, the minimum amount that should be charged to video dialtone to reflect its incremental cost on the broadband network is the remaining $1,477, or 83 percent of total investment.[5]

Scenario 3. In the absence of video dialtone, the existing network is nevertheless scrapped, as Bell Atlantic plans, with a stand-alone narrowband digital loop carrier system substituted. This architecture consists of a fiber (or coaxial) link from the central office to a neighborhood node connected by conventional copper loops to subscriber premises. In a "model" community, with household densities reflecting nationwide averages, David Reed estimated in 1992 the "future" cost of digital loop carriers at $696 (excluding switching) per

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[4]New England Telephone, 1993 New Hampshire Incremental Cost Study (April 30, 1993) at 30.

[5]In this case, as illustrated below in Table 2, separate telephone and video networks would be more economic, with the video network costing $1,439 per potential subscriber compared to the above $1477.

home passed.[6] Another study by Hatfield Associates places network cost (including switching) at $764 per line for household densities similar to those in Dover.[7] If we take $700 as a reasonable round number for Dover (without switching), with the same narrowband services and operating costs as the narrowband portion of the integrated network, the minimum investment properly attributable to video is $1,085 ($1,785 - $700) per potential subscriber -- 83 percent more than the $594 that Bell Atlantic proposes to charge video.

Scenario 4. As in Scenario 3, the digital loop carrier would be the most efficient alternative to the narrowband portion of the integrated network. However, in Scenario 4, the integrated network does provide additional useful narrowband services outside the bounds of the digital loop carrier, and the additional revenues (net of other incremental costs) are sufficient to cover the difference between the amount charged to telephony ($1,191) and the cost of the digital loop carrier ($700). In this case, the charge of $1,191 to telephony is economically justified and, correspondingly, the amount assigned to video dialtone ($594) is appropriate.

Scenarios 3 and 4 together raise the key question: what useful narrowband services would the integrated network provide that a digital loop carrier can't provide? Despite the thousands of pages Bell Atlantic has filed in the Commission's tariff investigation, it devotes almost no attention to this issue, which is of fundamental importance to any evaluation of the potential for cross-subsidy.

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[6] David P. Reed, Residential Fiber Optic Networks, An Engineering and Economic Analysis, Artech House, 1992, at 288-289. The "current cost" (in 1992) was estimated at $920, with the lower $696 "future" estimate reflecting the expected effects of technological advance. Household density is taken as 88 homes per linear mile (p. 109, n.2).

[7] Hatfield Associates, Inc., The Cost of Basic Universal Service (July 1994).

NCTA previously raised the same point as above about using the cost of the upgraded plant or a digital loop carrier as the baseline for determining the amounts that should be assigned to telephony and video in the integrated network.[8] Replying to NCTA, Bell Atlantic asserts that "[i]f that rationale withstood scrutiny, telephone companies would still be providing telephone service using black rotary phones and electromechanical switches."[9] Such cavalier response must be an embarrassment to Bell Atlantic. Obviously, no one is arguing that telephone networks should never be upgraded or replaced. The key question relates to (a) the most efficient way to obtain the capability to provide a given set of services, and (b) whether revenues will at least cover the incremental costs of those services. Bell Atlantic goes on to observe that:

> [T]he simple fact is that the telephone network has evolved over time in response to the development of new technologies, such as digital switching, new signaling technologies such as common channel signaling, and new transmission media such as digital loops and fiber optics. The result has been an improvement in the quality and reliability of existing services, as well as introduction of a steady stream of new services.[10]

No one will contest the validity of this observation. To be sure, the telecommunications field has been blessed over the decades with technological advances to the great benefit of society. This situation leaves totally open, however, questions about the most efficient way to provide new services and the amounts Bell Atlantic should be permitted to charge off to telephony.

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[8] NCTA, Petition to Reject, or in the Alternative, to Suspend and Investigate Bell Atlantic's Video Dialtone Tariff for the Dover System, February 21, 1995 at 17-19.

[9] Reply of Bell Atlantic, The Bell Atlantic Telephone Companies, Tariff FCC No. 10, Video Dialtone Service, March 6, 1995 at 9.

[10] Id. at 9-10.

Bell Atlantic seeks further to defend its video dialtone tariff by claiming that "[t]he upgrade to broadband capabilities is just the latest step in this continuing evolution and, like the prior steps in the process, will have the same impact on both existing and new services."[11] This is a bald assertion. It is far from obvious that Bell Atlantic's approach to "broadband capabilities" will have the "same impact." Recall that Bell Atlantic stands alone among the telephone companies filing Section 214 applications, by utilizing the fiber-to-the-curb architecture in Dover Township (and Florham Park), in contrast to the hybrid broadband design (or fiber to the neighborhood) proposed by other companies. Recall, too, that two of these companies -- Ameritech and GTE -- have decided against adding local exchange service to their broadband facilities within the foreseeable future, but rather are pursuing video on a stand-alone basis. This situation highlights again questions of how Bell Atlantic can justify charging two-thirds of its network investment to telephony. What are the new and useful narrowband capabilities afforded by the integrated network that cannot be provided by a stand-alone digital loop carrier network or, for that matter, by simply upgrading the existing network?

The fact that Bell Atlantic has no good answer is most apparent in Dr. Charles L. Jackson's distinction between "voice" and "video" to denote "the two disparate signal streams that flow over the VDT system and that will be used, in the short run, for providing telephone and video transport service respectively."[12] As he elaborates:

> My shorthand terminology of voice and video could potentially mask an important reality. The "voice" service is a two-way, ISDN-like, digital service all the way to the Optical Network Unit near the home and could be extended to the home. The "video" service is best thought of as a very high-speed

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[11] Id. at 10.

[12] Jackson Affidavit, at 3, in Reply of Bell Atlantic, supra, March 6, 1995.