Attachment 1

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Petition of New York Telephone Company for Approval of Its Statement of Generally Available Terms and Conditions Pursuant to Section 252 of the Telecommunications Act of 1996 and Draft Filing of Petition for InterLATA Entry Pursuant to Section 271 of the Telecommunications Act of 1996.	)	Case No. 97-C-0271
Petition Filed by Bell Atlantic-New York for Approval of a Performance Assurance Plan and Change Control Assurance Plan, in 97-C-0271	)	Case No. 99-C-0949

AFFIDAVIT OF
R. GLENN HUBBARD AND WILLIAM H. LEHR
ON BEHALF OF AT&T COMMUNICATIONS OF NEW YORK, INC.

R. Glenn Hubbard and William H. Lehr do hereby depose and state as follows:

I. STATEMENTS OF QUALIFICATIONS

R. GLENN HUBBARD

1. My name is R. Glenn Hubbard. My business address is 3022 Broadway, 609 Uris Hall, New York, New York 10027.

2. I hold the Russell L. Carson Professorship in Economics and Finance at Columbia University. During the 1997-1998 academic year, I was a visiting professor at the Harvard Business School. At the National Bureau of Economic Research, I am a research associate in programs on corporate finance, public economics, industrial organization, monetary economics, and economic fluctuations. I am also a visiting scholar at the American Enterprise Institute, where I direct the Program on Tax Policy

Research, and an advisor to the president of the Federal Reserve Bank of New York. Prior to joining the Columbia faculty as professor of economics and finance in 1988, I taught in the economics department of Northwestern University. I have also served as John M. Olin Visiting Professor at the University of Chicago, Visiting Professor and Research Fellow of the Energy and Environmental Policy Center at the John F. Kennedy School of Government, and John M. Olin Fellow at the National Bureau of Economic Research. My A.M. and Ph.D. degrees in economics are from Harvard University, and my B.A. and B.S. degrees are from the University of Central Florida, *summa cum laude*.

3. My professional work has centered on problems in public economics, industrial organization, natural resource economics, and monetary economics. I have authored more than eighty journal articles, edited a number of books, and authored a leading textbook in money and financial markets. I have served on the editorial boards of journals specializing in industrial economics. I have been an advisor or consultant to the Board of Governors of the Federal Reserve System, Congressional Budget Office, Federal Reserve Bank of New York, Internal Revenue Service, International Trade Commission, U.S. Department of Energy, and U.S. Department of the Treasury. In 1991-1993, I served as Deputy Assistant Secretary (Tax Analysis) of the U.S. Treasury Department where I was responsible for economic analysis of tax policy, the administration's revenue estimates, and health care policy issues.

4. I have previously filed or given testimony in telecommunications regulatory proceedings in Arizona, California, Colorado, Idaho, Iowa, Maine, Massachusetts, New Hampshire, New York and Vermont. I have also submitted numerous affidavits and declarations to the Federal Communications Commission and in

proceedings regarding revisions of the Modification of Final Judgment in *United States of America v. Western Electric Company and American Telephone and Telegraph Company* (U.S.D.C., Civil Action No. 82-192). My curriculum vitae is attached as Attachment 1 with more biographical details and a listing of my writings.

WILLIAM H. LEHR

5. My name is William H. Lehr. My business address is 94 Hubbard Street, Concord, MA 01742.

6. I am an associate research scholar of finance and economics at the Graduate School of Business of Columbia University, a research associate of the Columbia Institute of Tele-Information, and a research associate in the Center for Technology, Policy, and Industrial Development at the Massachusetts Institute of Technology. At MIT, I am executive director of the Internet and Telecoms Convergence Consortium. Prior to joining the Columbia faculty in 1991, I received my Ph.D. in economics from Stanford University. My M.B.A. (Wharton), M.S.E. (chemical engineering), B.S. (chemical engineering, *cum laude*), and B.A. (European history, *magna cum laude*) degrees are from the University of Pennsylvania. I have significant professional experience in the telecommunications industry through positions at consulting firms and at MCI.

7. I have previously filed or given testimony in telecommunications regulatory proceedings in California, Colorado, Connecticut, Georgia, New Mexico, Rhode Island, South Carolina, South Dakota, Utah, and Idaho. I have also submitted affidavits and declarations to the Federal Communications Commission and in proceedings regarding revisions of the Modification of Final Judgment in *United States of*

America v. Western Electric Company and American Telephone and Telegraph Company (U.S.D.C., Civil Action No. 82-192).

8. My research focuses on issues in telecommunications economics and policy. I have authored a number of professional articles on regulatory policy, standard setting, and network economics. My curriculum vitae is attached as Attachment 2.

II. SUMMARY

9. This Affidavit addresses a key aspect of the Performance Assurance Plan ("PAP") proposed by Bell Atlantic-New York ("Bell Atlantic")[1] – namely Bell Atlantic's proposed $184 million annual cap on penalties.[2]

10. The purpose of a performance assurance plan from an economic perspective is to deter Bell Atlantic from engaging in anticompetitive behavior. This objective can only be achieved if the magnitude of the financial consequences of discriminatory behavior by Bell Atlantic are greater than the expected value of the gains that Bell Atlantic will be able to earn through such conduct. Bell Atlantic has not provided any such comparison to justify its proposed penalty cap. As described in detail below, the penalty cap proposed by Bell Atlantic is substantially below the level of gains

[1] See *Petition for Approval of the Performance Assurance Plan and Change Control Assurance Plan for Bell Atlantic-New York*, Submitted to Public Service Commission, State of New York, Case 97-C-0271, by Bell Atlantic-New York, July 15, 1999, amended September 24, 1999.

[2] Bell Atlantic's annual cap on penalties is proving to be elusive. Bell Atlantic originally proposed a cap of $150 million. In its recently proposed amended PAP, Bell Atlantic proposed a cap of $184 million (p. 2 n.4). In its recent Section 271 application to the FCC, Bell Atlantic contends that the real maximum number for the PAP is $259 million (plus $10 million for the Change Control Assurance Plan) based on the assumption that the monthly amounts to be credited under the four MOE categories could be doubled under certain limited circumstances. Bell Atlantic's filing in this proceeding, however, gives no indication that increasing those monthly MOE credits would have any effect on the overall maximum cap. In any event, as discussed below, even $259 would be an inappropriate cap under the circumstances.

available through discriminatory conduct. Accordingly, to achieve its designed purpose, the penalty caps would have to be substantially raised – to at least $400-$500 million.

III. ANALYSIS

11. From an economic perspective, the purpose of penalties is to deter Bell Atlantic, the incumbent local exchange carrier (ILEC), from engaging in anticompetitive behavior. By virtue of its dominant position as the near-monopoly provider of local exchange services in its serving area, Bell Atlantic is able to earn substantial excess monopoly profits. These excess profits are not a one-time event, but continue as long as Bell Atlantic is successful in preserving its dominant market position. Moreover, anticompetitive behavior can produce spillover benefits by helping to leverage Bell Atlantic's market power into additional markets including long distance service, high-speed data services, and emerging markets for electronic commerce. The threat of *ex post* penalties can help offset Bell Atlantic's expected gains and thereby reduce their incentive to behave anticompetitively. When effective, Bell Atlantic will *not* engage in the forbidden behavior and the penalties will *not* be imposed. Therefore, the penalties represent only a conditional economic cost for Bell Atlantic -- a cost that is borne by Bell Atlantic only if it is shown to have engaged in anticompetitive activities.

12. To be effective, the threatened penalties need, at a minimum, to be calibrated to the *expected* wealth gain to Bell Atlantic from engaging in anticompetitive behavior. Because enforcement is uncertain and because of the potential for spillover benefits (as noted above), the current and expected future value of Bell Atlantic's excess monopoly profits will understate the potential gains to Bell Atlantic from maintaining its near-monopoly position. Ford and Jackson (1999) explain why it is important to take

these effects into account when setting penalty limits, arguing that it is better to set penalties that are too large rather than too small in order to effectively deter socially undesirable behavior.[3]

13. In addition to being correctly calibrated, the prospect of effective enforcement has to be assured. This means that specific anticompetitive acts that would trigger imposition of the penalties need to be clearly identified. The processes for monitoring and enforcement need to be clear. Because the goal of the penalties is to deter anticompetitive behavior over time, there needs to be a clear time path for how these penalties will be imposed and escalation provisions if Bell Atlantic's behavior fails to be adequately controlled by initial penalties.

14. While Bell Atlantic's proposed PAP recognizes the importance of compliance for the emergence of competition, the plan does not offer adequate safeguards for the competitive process. First, the PAP penalties are inadequate because the total penalty amounts are significantly less than the expected benefits to Bell Atlantic from maintaining its monopoly position and earning economic profits. While Bell Atlantic's proposed total penalty is limited to $184 million,[4] we estimate that Bell Atlantic's excess profits in New York are greater than $1.3 billion each year (see

[3] See George S. Ford and John D. Jackson, "Effective Enforcement and Nondiscriminatory Performance By Incumbent Local Exchange Carriers," Mimeograph, MCI/Worldcom, August 1999 (Attachment 3 hereto). While the economically efficient penalty must take into account the probability of uncertain enforcement, it would not be efficient to specify arbitrarily large penalties. The expected present value of an efficient penalty should not exceed the welfare cost of anticompetitive behavior. Moreover, it should account for Type II errors in the regulatory process, for any enforcement related litigation costs imposed by Bell Atlantic's conduct, and for the uncertain benefits from anticompetitive behavior.

[4] *See* note 2, *supra.*

Table A).[5] The present value to Bell Atlantic of preserving these profits by preventing the emergence of effective competition exceeds several billion dollars.[6] (This calculation does not include the potential economic benefit to Bell Atlantic of leveraging its market power into long distance, high speed data and electronic commerce services.) Thus, Bell Atlantic's proposed level for the threatened penalty is far too low to effectively deter Bell Atlantic from anticompetitive behavior.[7]

15. Second, the allocation of the very modest annual caps on penalties in the PAP proposal further reduce the deterrence effect of the penalties. The PAP allocates the overall annual maximum of $184 million across performance measures and is further subdivided into sub-category caps (*e.g.*, for unbundled network elements, $45 million per year as a composite "method of entry" sub-category and $42 million for individual performance measures within that method-of-entry sub-category). Relative to the large

[5] The estimate of $1.3 billion is conservative because it assumes that the excess profits on all lines are the same as the excess profits earned on residential services -- which are often incorrectly asserted by ILECs to be priced so low as to fail to recover their costs. No one disputes the fact that business and vertical services are priced substantially above cost. The overall aggregate estimate of excess profits is $1.8 billion (see Table A).

The excess profits earned by Bell Atlantic in New York are similar to those earned by other ILECs elsewhere as we showed in an earlier analysis of local competition (see "Improving Local Exchange Competition: Regulatory Crossroads," R. Glenn Hubbard and William H. Lehr, mimeo, Columbia University, February 1998.)

[6] For example, at an annual discount rate of 10%, the present value of this stream of profits for ten years is over $8 billion.

[7] This conclusion is consistent with the conclusion of the FCC's Common Carrier Bureau concerning a cap on liability for poor performance proposed by Southwestern Bell Telephone Company as part of a performance remedy plan for the State of Texas. The Chief of the Bureau wrote that staff was concerned that a $120 million annual cap on Southwestern Bell's potential payments, about 2.19% of SWBT's in-state gross local revenues, was "too low to foster parity performance in a market the size of Texas." Letter from L. Strickling, Chief, FCC Common Carrier Bureau, to P. Hill-Ardoin, SBC, dated September 28, 1999, p. 2. The FCC staff stressed that "the potential liability under such a plan must be high enough that an incumbent could not rationally conclude that making payments under an enforcement plan is an acceptable price to pay for hindering or blocking competition." Id. 2.19% of Bell Atlantic's New York gross local revenues would amount to about $189 million.

potential wealth gain to Bell Atlantic from anticompetitive behavior, sub-dividing the cap in this way and imposing restrictive annual limits denies regulators the flexibility they need to credibly and effectively utilize the penalty threat to discipline Bell Atlantic's behavior. These sub-caps also create unnecessary complexity that decreases the likelihood of swift enforcement and thereby further reduces the effectiveness of penalties as noted above. The regulators should retain discretion in order to enable the possibility of setting a time path of penalties (up to the total wealth gain to Bell Atlantic) that minimizes the expected effectiveness to Bell Atlantic of any particular class of anticompetitive actions. As long as enforcement is relatively accurate and timely, regulators should have the flexibility to front-load penalties. This is because Bell Atlantic's incentive to behave anticompetitively will decrease over time as competition erodes the margins that Bell Atlantic is seeking to protect. It is clear that the annual aggregate caps proposed by Bell Atlantic-New York would not impose an effective deterrent against anticompetitive practices.

16. Third, the compliance incentives in Bell Atlantic's PAP proposal are diluted and distorted by the segmentation of the penalty into sub-categories based on behavior.[8] Such a proposal underestimates combined effective penalties because anticompetitive behavior in one category generates spillover benefits to Bell Atlantic-New York from other actions. Under the Bell Atlantic PAP proposal, total penalties are divided among method-of-entry categories (*e.g.*, resale, unbundled network elements, or

[8] See also Ford and Jackson, note 3, *supra*.

collocation) and a set of critical measures (with further sub-categorization).[9] Anticompetitive strategies in any or all of these areas will have the same effect -- namely, the reduction of competition.

17. By contrast, the Performance Incentive Plan proposed by AT&T avoids these deficiencies. The plan would convert the annual limitation on Bell Atlantic's penalty exposure to an appropriately set procedural cap. Second, the plan would allow regulatory flexibility to impose a pattern of penalties to deter early attempts to frustrate competition. Third, the plan would significantly increase the periodic performance category limits to Bell Atlantic's exposure to financial consequences for noncompliance.

18. As noted above, the aggregate annual penalty pool of $184 million per year that is further limited by being allocated to overly-restrictive sub-categories will be insufficient to deter Bell Atlantic from engaging in anticompetitive behavior. If Bell Atlantic's anticompetitive behavior allows them to protect just 10% of their excess monopoly profit, the benefits to Bell Atlantic will be between $0.8 to $1.1 billion (see Table A). If one then adjusts for imperfect enforcement, an even larger penalty would be required to deter Bell Atlantic from such behavior. Bell Atlantic has not provided a basis for establishing the $184 million penalty limits. We believe it would be prudent to consider a substantially larger penalty pool in the present context. In particular, in view of the pool of monopoly profits available to Bell Atlantic, as well as the economic benefits to Bell Atlantic from leveraging its monopoly into other service markets, we believe that a penalty pool in the range of from $400-$500 million would be more

[9] The complete description of the distribution of penalties among critical measures is presented in *Petition for Approval of the Performance Assurance Plan and Change Control Assurance Plan for Bell Atlantic-New York*, note 1, *supra*, Appendix B.

appropriate and would send a strong signal of the seriousness with which the Commission will address anticompetitive behavior by Bell Atlantic.

Table A
Bell Atlantic-New York Excess Profits Computed

Revenues (per line, per month)	Residential	Total
Total Revenue[10]	$ 36.45	$ 42.52
Network Costs[11]	$ 12.98	$ 12.98
Sales & Marketing[12]	$ 3.89	$ 3.89
Total Operating Cost	$ 16.87	$ 16.87
Net income (pre-tax)	$ 19.57	$ 25.64
Taxes	$ 9.79	$ 12.82
Excess profit per line per month	$ 9.79	$ 12.82
Total number of lines (000s)	11,380	11,380
Total annual excess profits ($Millions)	$ 1,336	$ 1,751
Net present value ($Billions)[13]	$ 8.2	$ 10.8

[10] See Table B.

[11] See USF estimate from Hatfield 5.0. This estimate includes all network related costs and includes an adjustment for general overhead.

[12] Assume sales and marketing retail-level expenses are 30% of network related costs.

[13] Assuming 10% discount rate and annual profits continue for 10 years yields annuity rate of 6.14.

Table B
Bell Atlantic-New York Revenue Estimates[14]

Revenues ($000s)	Residential	Total
Local Service Revenue	$ 189,288	$ 340,517
IntraLATA toll revenue	$ 27,961	$ 45,006
Interstate Access revenue	$ 38,609	$ 72,522
Intrastate Access revenue	$ 14,799	$ 25,790
Total Revenue	$ 270,657	$ 483,835
Revenue per line Average # Lines	7,426	11,380
Local Service Revenue	$ 25.49	$ 29.92
IntraLATA toll revenue	$ 3.77	$ 3.95
Interstate Access revenue	$ 5.20	$ 6.37
Intrastate Access revenue	$ 1.99	$ 2.27
Total Revenue per line	$ 36.45	$ 42.52

[14] Revenue per line estimates are from Bell Atlantic submission to FCC for benchmark computation of average revenue per line and reflect Bell Atlantic revenues for July 1998 (see Kenneth Rust, "Letter from Bell Atlantic to FCC: Bell Atlantic Submits Revenue Benchmark Data pursuant to FCC Order of August 7, 1998 in CC Docket Nos. 96-45 and 97-160," October 6, 1998). Local service revenue from Chart 4; IntraLATA toll revenue from Chart 5; Interstate access revenue from Chart 2; and Intrastate access revenue from Chart 3.