BEFORE UUCKETING DIVISION PUBLIC UTILITIES COMMISSION OF OHIO

In the matter of the Application of The Ohio Bell Telephone Company for approval of an alternative form of regulation

Case No. 93-487-TP-ALT

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JUL 1 3 1994

TESTIMONY of

HISHAM M. CHOUEIKI

Submitted on behalf of The Public Utilities Commission of Ohio

13 STAFF EXHIBIT

Dated July 12, 1994.

1	1.	Q.	What is your name, current position, and business address?
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3		Α.	My name is Hisham M. Choueiki. I am an Energy Specialist in the Forecasting
4			Division of the Utilities Department at the Public Utilities Commission of Ohio. My
5			business address is 180 East Broad Street, Columbus, Ohio 43215.
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7	2.	Q.	What is the purpose of your testimony?
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9		А.	The purpose of my testimony is to respond to objections raised by Ameritech Ohio
10	·		and other parties concerning the Staff's assessment of the Ameritech Ohio
11			infrastructure deployment commitments.
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13	3.	Q.	What are your qualifications to present this testimony?
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15		Α.	I am a Ph.D. candidate in the Department of Industrial and Systems Engineering at
16			The Ohio State University. I am also a registered professional engineer in the State
17			of Ohio. I have been employed by the PUCO for the last six and a half years. My
18			professional experience at the PUCO includes the following: a) administering utility
19	-		rate analysts involved in research and investigations of the forecasting, planning, and
20			accounting functions of Ohio utilities, b) conducting independent research in the
21			areas of technology forecasting, telecommunications engineering and planning,
22			linear and nonlinear splines, and artificial neural networks, c) leading the Enhanced
23			Traditional Regulation team in the design of draft rules for regulating the large local
24			exchange companies in Ohio, d) contributing to the development of the Alternative
25			Regulation Commission rules for regulating large local exchange companies in Ohio,
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e) evaluating the infrastructure deployment commitments in Case Nos. 93-230-TP-ALT and 93-432-TP-ALT, f) forecasting energy demand (natural gas, electricity, petroleum products, coal and nuclear) for Ohio and the U.S., g) submitting written and oral testimony in IRP hearings, h) characterizing the historical and forecast time paths of economic, demographic and energy systems and relations, in terms of linear and nonlinear spline models, and i) integrating the business cycle, demographic trends, and socio-economic shocks into sectoral energy forecasts and analyses.

Before joining the PUCO, I was employed by the National Regulatory Research Institute as a Graduate Research Associate in telecommunications for one and a half years. My professional experience at NRRI included: a) formulating a mathematical model to compute the cost of a 1AESS central office expansion at Ohio Bell, b) coding SAS and Fortran computer algorithms to compute blocking and delay probabilities at Southwestern Bell, and c) constructing a CAPCOST model that was used in telephone cost of service studies.

I have coauthored, and contributed to, a number of articles and reports in the energy and telecommunications fields. Some of the reports in the telecommunications field are the following:

> Pollard, W., Mount-Campbell, C., Neuhardt, J., Chang, S., Choueiki, H., Lee, B., Tau, Y., and Yuan, M. (1990), An Examination of the Application of Peak Methods to Allocate a Revenue Requirement for Intrastate Telephone Services, The National Regulatory Research Institute.

Mount-Campbell, C., and Choueiki, H. (1987), A Method to Estimate Long-Run Marginal Cost of Switching for Basic Telephone Service Customers, The National Regulatory Research Institute.

Choueiki, H. (1987), The Evaluation of an Experimental Design and Analysis Strategy when the Underlying Model is Unknown, Master's Thesis, Department of Industrial and Systems Engineering, The Ohio State University.

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1			Pollard, W., Burghelea, A., Choueiki, H., and Ferng, L. (1987), A Model for
2			Estimating the Marginal Cost of Switching: An Example Using Digital Switching, The National Regulatory Research Institute.
3			
4	4.	Q.	What was your role in the Staff's analysis of the Ameritech Ohio Alternative
5			Regulation Plan and in the development of the Staff Report?
6			
7		А.	I was responsible for evaluating the infrastructure commitments in the Ameritech
8			Ohio Application, and was responsible for writing the Infrastructure Commitments
9			Section of the Staff Report (pages 100-105).
10			
11	5.	Q.,	What definition did the Staff use for the term "commitment" in evaluating the
12			Ameritech Ohio infrastructure commitments?
13			
14		Α.	The Staff used the Commission's definition of a commitment: A commitment is
15			defined as an obligation to provide services or enhance their value to customers
16			pursuant to a company's approved alternative regulation plan. As the Commission
17			noted in its Entry on Rehearing in Case No. 92-1149-TP-COI at Finding 14,
18			enhancements to infrastructure can mean to provide or enhance the value of services
19			to customers. Furthermore, in its Finding and Order in Case no. 92-1149-TP-COI
20			on page 18, the Commission required that a commitment be demonstrated to be in
21			addition to what is required of a large local exchange company under Minimum
22			Telephone Service Standards (MTSS).
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24	6.	Q.	What guidelines did the Staff use in evaluating the Ameritech Ohio infrastructure
25			commitments?
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1		A.	The Staff used the Alternative Regulation Rules Section X(B)(2) of the Commission's
2		£.7*	Finding and Order in Case No. 92-1149-TP-COI, as guidelines in evaluating the
3			infrastructure commitments.
4			
5	7.	Q.	What was the Staff's recommendation regarding the Ameritech Ohio infrastructure
6		τ.	commitments?
7			
8		A.	The Staff recommended that the Ameritech Ohio infrastructure commitments listed
9			in Table 4 of the Staff Report be included in any Plan approved by the Commission.
10			
11			It is the Staff's opinion that the infrastructure implementation schedule described in
12			Table 4 would enhance the quality, reliability, and survivability of the public switched
13	:		network. Additionally, such a schedule would result in an increased availability of
14			advanced telecommunications services across the Ameritech Ohio service territory,
15			and would be consistent with the public policy goals set forth in 4927.02, ORC.
16			· ·
17	8.	Q.	Does the Staff recognize that the costs associated with deploying the Ameritech Ohio
18	!		infrastructure commitments (Table 5, Staff Report) are estimates of the real costs
19			that would be incurred?
20			
21		A.	Yes, the Staff recognizes that the costs associated with the Applicant's proposed
22			infrastructure deployment could be more or less than what was initially estimated by
23			the Applicant. The Staff has focused its investigation on the achievement of the
24			levels of advanced telecommunications services resulting from the implementation
25			of the modernization schedules in Table 4 of the Staff Report, rather than their
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associated costs.

3	9.	Q.	Why did the Staff recognize only \$382.2-\$476.2 million in infrastructure investment
4	7.	Q.	in the Ameritech Ohio Plan?
5			in the American Onio Fian?
6		٨	The implementation Americant Objects with 1 01 C 1/11 and 1 C and
7		A.	In its Application, Ameritech Ohio committed \$1.6 billion to infrastructure
8			deployment. After their investigations, the Staff and its consultant determined that
			the cost associated with the modernization schedules was \$382.2 to \$476.2 million.
9			Another \$800 million was necessary for maintaining common carrier obligations,
10	-		including Minimum Telephone Service Standards (MTSS). The Applicant was not
11			able, however, to identify what portion of the \$800 million was for MTSS, nor was
12			it able to adequately explain where the remaining \$323.8 million was going to be
13			spent. Consequently, the Staff was only able to recognize \$382.2 to \$476.2 million
14			out of the total \$1.6 billion infrastructure investment claimed by the Applicant as a
15			commitment.
16			
17	10.	Q.	Is the Ameritech Ohio recommended progress report sufficient for the Staff to monitor
18		-	the infrastructure commitment's progress during the term of the Plan?
19			
20		A.	No, it is not. It is the Staff's opinion that Attachment 23.14 of the Applicant's Exhibit
21			23 is necessary but not sufficient for the Staff to adequately monitor the Plan and to
22			assure that its objectives are properly being followed during its term. As a result,
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24			the Staff recommended that, in addition to completing Attachment 23.14, the
			Applicant should also file Appendix 2 of the Staff Report on an annual basis.
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1 Q. 11. Will the \$382.2 to \$476.2 million recognized by the Staff as a commitment in the 2 Ameritech Ohio Plan be considered a part of the rate base should Ameritech Ohio 3 file a rate case? 4 5 A. The Staff believes that the value of the Applicant's infrastructure commitments would 6 only prevail under a properly designed price cap framework. In other words, the 7 infrastructure commitments would have no value if the Applicant files with the 8 Commission a rate case, an amendment, or a termination of its Plan during or at the 9 conclusion of its term. Should any of the latter circumstances take place, the Staff 10 would have to conduct a prudency review and a used and useful test in order to 11 determine what proportion of the recognized \$382.2 to \$476.2 million infrastructure 12 investment would be added to the rate base. 13 14 12. Q. Will the Ameritech Ohio service rates be affected by the infrastructure deployment 15 commitments under a properly designed price cap framework? 16 17 A. No, they will not. The NRRI study team concluded that a properly designed price 18 ÷., cap framework would relieve the ratepayer from any risk associated with an 19 infrastructure deployment commitment. Unlike the case under traditional rate base 20 rate of return regulation, the Applicant's rates under a price cap regulatory regime 21 would be a function of an agreed upon set of economic indicators and pricing 22 parameters, rather than a function of the Applicant's rate base. The Staff also stated 23 in its Report that the value of the infrastructure commitments are realized as long as 24 the Ameritech Ohio ratepayers are shielded from the risk of rates increasing due to 25 the failure of the Applicant to recover its investments under price cap regulation. 26 27 6 28

1 2 3 4 5			Finally, the Applicant stated that its price cap Plan "eliminates the debate over who should pay for modernization and advanced services since the burden associated with the recovery of that investment shifts from the customer to the investor." [Testimony of Richard Brown, Ohio Bell Exhibit 14.0].
6	13.	Q.	Are the Applicant's infrastructure commitments sufficient for the Staff to recommend
7 8			Alternative Regulation?
9		•	
10	-	А.	The Applicant's infrastructure commitments, as modified by the Staff, are necessary
11			for granting Alternative Regulation, however, they are not sufficient. As a matter
12			of fact, given the Staff's review of the Applicant's financial status, the Staff
13			considered the Applicant's commitments, in total, to be inadequate for granting
14			alternative regulation, when considered in conjunction with the various components
15			of the proposed Plan.
16	14.	Q.	What is the Staff's opinion of the ISDN deployment schedule described in Table 4
17			of the Staff Report?
18			
19		A.	It is the Staff's opinion that the modernization schedule described in Table 4 of the
20			Staff Report, which includes 100% availability of ISDN by the end of the five year
21			plan, is appropriate.
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1	15.	Q.	Since only a portion of the Staff's recommended infrastructure investment may be
2			considered as an additional investment associated with the Applicant being regulated
3			under an alternative regulation regime, should that portion be the only investment
4			recognized as a commitment in the approved Alternative Regulation Plan?
5			
6		A.	No. Given the Commission's definition of a commitment, the Staff rejects the
7			argument that a commitment must be something that the Applicant would not
8			otherwise undertake. Consequently, the Staff's recognized infrastructure investment,
9	:		in total, should be included in the Applicant's approved Alternative Regulation Plan.
10	•		
11	16.	Q.	Should the Applicant be forced to spend a minimum of \$1.6 billion on specific
12			infrastructure investments above and beyond what is necessary for common carrier
13	5		obligations, in order to be granted the pricing flexibility of price caps?
14			
15		A.	No. Pricing flexibility is not granted to the Applicant solely on the basis of how much
16			money the Applicant intends to spend on network modernization. It is the assessment
17			that the Applicant's Plan, in its entirety, is in the public interest that grants pricing
18			flexibility.
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20	17.	Q.	Was the public clearly informed in the Staff Report regarding the nature of Ameritech
21			Ohio's proposed investment commitment?
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1		A.	Yes, it was. The Staff stated clearly in its Report that \$800 million of the proposed	
2			amount would be spent on common carrier obligations, including MTSS. The rest	
3			of the amount, also an \$800 million investment, would be spent on projects above	
4			and beyond common carrier obligations and MTSS.	
5				
6	18.	Q.	Is it the Staff's responsibility to insure that telecommunications service market	
7			demand is the factor that drives infrastructure deployment decisions?	
8				
9		А.	Under a properly design price cap regulatory model, it is not the reponsibility of the	
10	-		Staff to insure that markert demand is the factor that drives infrastructure deployment	
11			decisions. Since the Applicant's investors are willing to take all the investment risks,	
12			the Applicant should be responsible for conducting market demand studies and	
13			insuring that the results of such studies are used in infrastructure deployment	
14			decisions. It is Staff's responsibility, however, to determine whether or not the	
15	ļ		deployment decisions are consistent with the Alternative Regulation rules and the	
16			public policy goals set forth in 4927.02, ORC.	
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18	19. 🤏	Q.	What is the difference between the infrastructure deployment commitments in the	
1 9			Advantage Ohio Plan and the video dialtone network that Ameritech filed with the	
20			Federal Communications Commission (FCC)?	
21				
22		Α.	The infrastructure deployment commitments in the Advantage Ohio Plan are all	
23			directed toward modernizing the public switched network. The video dialtone	
24			network that was submitted to the FCC, according to Ameritech Ohio, is an	
25			independent stand alone network that provides access to video programming only.	
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1	20.	Q.	Why didn't the Staff take a position on NRRI recommendation 9.4?
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3		A.	The alternative regulation rules do not require the Staff to compare an applicant's
4			telecommunications network with that of other local exchange carriers (LEC) in or
5	-		outside Ohio. In fact, the rules recognize the uniqueness of each LEC, and require
6			that each applicant be evaluated independently in the context of its overall plan.
7			
8		-	It is also Staff's opinion that valid conclusions could not be drawn from the NRRI
9			comparisons. Variables such as population density in the LECs' service areas, traffic
10	-		data, level of competition, percent of access lines in the state served by each LEC,
11			which all play an important role in each LEC's decision to deploy infrastructure,
12			were not examined by NRRI.
13			
14	21.	Q.	Why did the Staff exclude from its analysis an evalustion of the Applicant's economic
- 1 e			
15			development claims?
15 16			development claims?
		A.	There is an opinion in the telecommunications industry that suggests the presence
16		A.	
16 17		A.	There is an opinion in the telecommunications industry that suggests the presence
16 17 18		A.	There is an opinion in the telecommunications industry that suggests the presence of a positive correlation between economic development and the modernization of
16 17 18 19		A.	There is an opinion in the telecommunications industry that suggests the presence of a positive correlation between economic development and the modernization of a telecommunications network. There is, however, major disagreements on the size
16 17 18 19 20		A.	There is an opinion in the telecommunications industry that suggests the presence of a positive correlation between economic development and the modernization of a telecommunications network. There is, however, major disagreements on the size of that correlation. The intent of the Staff's evaluation of the Plan was not to settle
16 17 18 19 20 21		A.	There is an opinion in the telecommunications industry that suggests the presence of a positive correlation between economic development and the modernization of a telecommunications network. There is, however, major disagreements on the size of that correlation. The intent of the Staff's evaluation of the Plan was not to settle such disagreements nor was it to take a position. It is for this reason that the Staff
16 17 18 19 20 21 22		A.	There is an opinion in the telecommunications industry that suggests the presence of a positive correlation between economic development and the modernization of a telecommunications network. There is, however, major disagreements on the size of that correlation. The intent of the Staff's evaluation of the Plan was not to settle such disagreements nor was it to take a position. It is for this reason that the Staff decided not make an independent evaluation of the Applicant's economic
16 17 18 19 20 21 22 23		A.	There is an opinion in the telecommunications industry that suggests the presence of a positive correlation between economic development and the modernization of a telecommunications network. There is, however, major disagreements on the size of that correlation. The intent of the Staff's evaluation of the Plan was not to settle such disagreements nor was it to take a position. It is for this reason that the Staff decided not make an independent evaluation of the Applicant's economic development claims. In addition, the Staff was not specifically concerned with
16 17 18 19 20 21 22 23 24		A.	There is an opinion in the telecommunications industry that suggests the presence of a positive correlation between economic development and the modernization of a telecommunications network. There is, however, major disagreements on the size of that correlation. The intent of the Staff's evaluation of the Plan was not to settle such disagreements nor was it to take a position. It is for this reason that the Staff decided not make an independent evaluation of the Applicant's economic development claims. In addition, the Staff was not specifically concerned with whether or not the enhancements in the economic development in Ohio due to the
 16 17 18 19 20 21 22 23 24 25 		Α.	There is an opinion in the telecommunications industry that suggests the presence of a positive correlation between economic development and the modernization of a telecommunications network. There is, however, major disagreements on the size of that correlation. The intent of the Staff's evaluation of the Plan was not to settle such disagreements nor was it to take a position. It is for this reason that the Staff decided not make an independent evaluation of the Applicant's economic development claims. In addition, the Staff was not specifically concerned with whether or not the enhancements in the economic development in Ohio due to the
 16 17 18 19 20 21 22 23 24 25 26 		Α.	There is an opinion in the telecommunications industry that suggests the presence of a positive correlation between economic development and the modernization of a telecommunications network. There is, however, major disagreements on the size of that correlation. The intent of the Staff's evaluation of the Plan was not to settle such disagreements nor was it to take a position. It is for this reason that the Staff decided not make an independent evaluation of the Applicant's economic development claims. In addition, the Staff was not specifically concerned with whether or not the enhancements in the economic development in Ohio due to the Ameritech Ohio infrastructure deployment commitments were exaggerated. The

1			main concern to the Staff was whether or not the infrastructure commitments, within
2			the context of the recommended Plan, were in the public interest, and whether or not
3			they were consistent with the public policy goals set forth in 4927.02, ORC.
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5	22.	Q.	Does this conclude your testimony?
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7		A.	Yes, it does.
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CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing **Prepared Testimony** submitted on behalf of the Public Utilities Commission of Ohio was served by regular, U.S. mail, postage prepaid or hand delivered to the parties of record on this 13th day of July, 1994.

STEVEN T. NOURSE Assistant Attorney General

PARTIES OF RECORD:

Michael Mulcahy Ameritech Ohio 45 Erieview Plaza, Room 1400 Cleveland, OH 44114

Barry Cohen Associate Consumers' Counsel Office of the Consumers' Counsel 77 South High Street, 15th Floor Columbus, OH 43266-0550

Judith B. Sanders Bell, Royer & Sanders Co., LPA 33 South Grant Avenue Columbus, OH 43215-3927

Robin P. Charleston AT&T Communications of Ohio, Inc. 227 West Monroe Street, 6th Floor Chicago, IL 60606

Douglas W. Trabaris MCI 205 N. Michigan Avenue, Suite 3200 Chicago, IL 60601

Mary Hull Sprint Communications Co., L.P. 8140 Ward Parkway, 5E Kansas City, MO 64114 William M. Ondrey Gruber City of Cleveland 601 Lakeside Avenue, Room 106 Cleveland, OH 44114

Gregory Dunn Crabbe, Brown, Jones, Potts & Schmidt 500 S. Front Street, Suite 1200 Columbus, OH 43215

Maureen Grady Hahn Loeser & Parks 431 E. Broad Street, Suite 200 Columbus, OH 43215

Janine Migden Hahn Loeser & Parks 431 E. Broad Street, Suite 1200 Columbus, OH 43215

William S. Newcomb, Jr. Vorys, Sater, Seymour & Pease 52 East Gay Street P. O. Box 1008 Columbus, OH 43216-1008

Bruce J. Weston AARP 169 West Hubbard Avenue Columbus, OH 43215-1439 Karin Rilley Education Section Office of the Attorney General 30 East Broad Street, 15th Floor Columbus, OH 43266-0410

Ellis Jacobs Dayton Legal Aide 333 West 1st Street, Suite 500 Dayton, OH 45402

Samuel C. Randazzo Emens, Kegler, Brown, Hill & Ritter 65 East State Street, Suite 1800 Columbus, OH 43215

Sally W. Bloomfield Bricker & Eckler 100 South Third Street Columbus, OH 43215

Dennis K. Muncy Meyer, Copel, Hirschfield, Muncy, Jahn & Aldeen Athenaeum Building 306 W. Church Street, P.O. Box 6750 Champaign, IL 61826-6750

Cecil O. Simpson, Jr. Office of The Judge Advocate General Department of the Army 901 North Stuart Street Arlington, VA 22203-1837 Daniel Malkoff Dept. of Administrative Services 30 East Broad Street Columbus, OH 43215

Sheldon Taft Vorys, Sater, Seymour and Pease 52 East Gay Street P. O. Box 1008 Columbus, OH 43216-1008

Clyde Kurlander Teleport Three First National Plaza Chicago, IL 60602

Kerry Bruce City of Toledo Dept. of Public Utilities One Government Center, Suite 1520 Toledo, OH 43604

William A. Adams Arter & Hadden 10 West Broad Street Columbus, OH 43215