NATIONAL ECONOMIC
RESEARCH ASSOCIATES
ONE MAIN STREET
CAMBRIDGE, MASSACHUSETTS 02142
TEL: 617.621.0444 FAX: 617.621.0336
INTERNET: http://www.nera.com

n/e/r/a
Consulting Economi

030867-TL

DIRECT TESTIMONY OF DR. KENNETH GORDON

On behalf of Verizon Florida Inc., BellSouth Telecommunications, Inc., and Sprint-Florida Inc.

August 27, 2003

DOCUMENT NUMBER-DATE
08005 AUG 27 03
FPSC-COMMISSION CLERK

DIRECT TESTIMONY OF DR. KENNETH GORDON

I. PURPOSE & SUMMARY OF CONCLUSIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Dr. Kenneth Gordon. My business address is One Main Street, Cambridge, Massachusetts 02142. My C.V. is provided as Attachment A.

Q. WHAT IS YOUR CURRENT POSITION?

A. I am a Special Consultant of National Economic Research Associates, Inc. ("NERA"). Previously, I was Senior Vice President at NERA.

Q. WILL YOU PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL QUALIFICATIONS?

A. I am an economist and former Chairman of the Maine Public Utilities Commission ("Maine Commission") and the Massachusetts Department of Public Utilities ("Mass. DPU"). The Mass. DPU is now known as the Massachusetts Department of Telecommunications and Energy. I have been an economist since 1965, and I have been directly involved with developing and establishing regulatory policy at the federal and state levels since 1980, when I became an industry economist at the Federal Communications Commission ("FCC").

I received my A.B. degree from Dartmouth College in 1960. I received my M.A. degree in 1963 and my Ph.D. degree in 1973, both in economics, from the University of Chicago. I have taught applied microeconomics, industrial organization, and regulation (as well as other subjects) at Georgetown University, Northwestern University, University of

Massachusetts at Amherst, and Smith College.

From 1980 to 1988, I was an industry economist at the FCC's Office of Plans and Policy, where I worked on a full range of regulatory issues, including telecommunications, cable, broadcast, and intellectual property rights. At the FCC, one of the major focuses of my work was activity aimed at introducing competition into communications markets.

Prior to joining NERA in November 1995, I chaired the Maine Commission (1988 to December 1992) and the Mass. DPU (January 1993 to October 1995). During my term as Chairman of the Mass. DPU, the DPU investigated and approved a price cap incentive regulation plan for NYNEX and also undertook a proceeding to examine interconnection and other issues related to the development of competition at all levels of telecommunications, including basic local service.

While a regulator, I was active in the National Association of Regulatory Utility Commissioners ("NARUC"), serving on its Communications and Executive Committees. In 1992, I served as President of NARUC. I was also Chairman of the BellCore Advisory Committee and the New England Governor's Conference Power Planning Committee.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. Verizon Florida Inc., BellSouth Telecommunications, Inc., and Sprint-Florida Inc., ("the companies") are seeking to restructure their rates for intrastate network access services ("intrastate access") and basic local telecommunications services ("basic local") in

accordance with recently passed legislation by the Florida Legislature.[1] The companies' plans—which must address the criteria established in the legislation—call for them to restructure their intrastate access and basic local rates in a revenue-neutral manner.

The companies have asked me to provide an economic and policy analysis of their rate plans and to testify on whether I believe those plans meet the criteria laid out in the legislation.

Q. WHAT ARE YOUR MAJOR CONCLUSIONS?

A. After reviewing the newly-enacted legislation, the evidence in this case—specifically the companies' plans and the cost evidence submitted by the companies' witnesses—and based on my general knowledge and expertise on telecommunications economic and regulatory matters, I conclude that the plans submitted by the companies meet the criteria contained in the legislation. Specifically, upon implementation, the plans will, *inter alia*:

- Reduce current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential consumers; and
- Induce enhanced market entry.

The companies' plans significantly decrease support for basic local service by reducing prices for a service that has historically and purposely been an important source—but by no means the only source—of support for basic local services, namely intrastate access. In order to achieve revenue neutrality, the companies' plans increase residential basic local prices towards cost-based levels, thus creating a more attractive market for potential

[1] *See* Section II below.

entrants, ultimately for the benefit of residential consumers. Both theory and empirical evidence show that low residential basic local prices have hindered the development of residential competition. By better aligning residential basic local prices with cost, competitors will have increased incentives to target a broader mix of residential consumers, which is the intent of the Florida legislature.

In addition, I conclude that the plans will enhance economic welfare in Florida by increasing economic activity. As described in the respective testimonies of the companies' cost witnesses, the cost evidence submitted in this proceeding demonstrates that rates for residential basic local service diverge significantly from their underlying costs. A movement toward costs—and, therefore toward more rational economic pricing—will bring with it several economic benefits. These benefits include providing market participants—i.e., customers, the companies and potential and actual competitors—with more cost-based price signals, which will improve economic decision making and lead to more economically rational utilization of telecommunications services. Economic activity in Florida will increase as a result of the companies' plans because rebalancing generates substantial consumer benefits. Telephone consumers are better off as a result of moving prices more in line with costs, and will likely increase their purchases of those services whose price has come down. Perhaps of even greater significance, competitive telephone service providers will be seeing better price signals for local service, and will be able to invest without having to face the level of subsidized competition they have faced in the past. New investment by these providers should, at the margin, increase.

The cost evidence presented by the companies demonstrates that basic local prices are

receiving an economic subsidy from other services. The companies submitted forward-looking direct cost evidence to demonstrate that their residential basic local services are priced below the costs the companies incur to provide the services. Forward-looking direct cost is the basis for determining whether a service is receiving an economic subsidy. Moreover, consistent with this Commission's ruling, the companies' cost witnesses, when measuring the economic subsidy flowing to basic local services, correctly assign the entire cost of the loop to basic local.

I also conclude that the companies' plans will not jeopardize universal service in the state of Florida. The companies' residential basic local prices are substantially below the national average and Florida is not a poor state. The Florida Public Service Commission ("Commission") has the flexibility to approve the companies' plans and still have residential basic local prices remain affordable. The Florida Legislation requires that any price increase in basic local service not apply to Lifeline consumers and also increased the income eligibility for Lifeline consumers to 125 percent, thus protecting those customers most likely to be sensitive to potential price increases from a rebalancing plan. Importantly, the companies' rebalancing plans will lead to lower intrastate toll prices for all consumers. At the end of the day, the mix of services that consumers purchase as a result of the companies' plans will make consumers better off overall.

Finally, the fact that some customers may experience unwanted rate changes should not be an argument for the status quo. Good policy requires weighing and balancing the costs and benefits of particular actions. While it may seem that maintaining current prices is the least objectionable thing to do from a policy perspective, there is an implicit but very real cost to continuing the status quo. The deployment of next generation, advanced networks

depends crucially on providing all market participants the sound economic signals that will encourage efficient investment and innovation. Cost-based prices provide the incentives needed to bring to market the new services that customers demand. This cannot be accomplished by distorted prices.

II. BACKGROUND

Q. PLEASE DESCRIBE THE BASIS FOR THE COMPANIES' REQUEST TO INCREASE BASIC EXCHANGE PRICES.

A. From an economic perspective, the fact that the companies' current residential basic local prices are not fully recovering their forward-looking economic cost is, by itself, a good enough reason to begin the process of moving them to more economically rational levels. Both theoretical and empirical research have shown that rebalancing rates and moving them toward levels more commensurate with their underlying costs results in significant benefits to telecommunications consumers and, by so doing, benefits the economy as well.[2] Rebalancing rates has also been demonstrated to have a positive effect on competitive entry into the local exchange market.[3]

The immediate catalyst for the companies' plans is the recent changes in Florida laws. I have been informed by counsel that the legal authority for the companies' request arises from recent changes in the statutory framework in Florida. During the 2003 regular legislative session, the Legislature passed Senate Bill 654, the Tele-Competition Innovation and Infrastructure Enhancement Act ("Tele-Competition Act"). The Tele-

[2] See Section IV below.

[3] See Section III.

Competition Act implements several important policies, but for our purposes the relevant Section of the Tele-Competition Act is § 364.164 "Competitive market enhancement."

Q. WHAT ARE THE IMPORTANT PROVISIONS OF § 364.164?

A. § 364.164 permits local exchange telecommunications companies to petition the Commission to reduce their intrastate access rates in a revenue-neutral manner. In reaching its decision, § 364.164 (1) states that the Commission shall consider whether granting the petitions will:

a. Remove current support for basic local telecommunications services that prevents the creation of a more attractive competitive local exchange market for the benefit of residential consumers;

b. Induce enhanced market entry;

c. Require intrastate switched network access rate reductions to parity over a period of not less than 2 years or more than 4 years; and

d. Be revenue neutral as defined in subsection (7) within the revenue category defined in subsection (2).

Throughout my testimony, I will focus on whether the companies' plans are consistent with and meet the criteria provided in § 364.164 (1) (a) and (b). Other company witnesses discuss how the companies' plans would meet criteria (c) and (d).

Q. IN ORDER TO REDUCE INTRASTATE ACCESS RATES IN A REVENUE NEUTRAL MANNER, RATES FOR OTHER SERVICES NEED TO BE INCREASED. WHAT SERVICES DO YOU BELIEVE SHOULD BE INCREASED?

A. The first category of services that should be considered are those services whose current

prices do not recover fully their underlying costs, such as residential basic local telecommunications services. Rates for these subsidized services should be increased in order to better reflect their real economic cost. This is confirmed in §364.164 (2), where the legislation calls for the creation of a revenue category mechanism consisting of basic local telecommunications service revenues and intrastate switched network access revenues in order to achieve revenue neutrality. That is, the legislation states that in order to achieve revenue neutrality, if intrastate access prices are reduced, then basic local service prices need to be increased.

The current rate design for telephone services—where basic local services are priced below cost and other services, including intrastate access service, are priced in such a way so as to provide the support—while in the process of being reduced or eliminated in a number of states, continues to be encountered in state regulation of telephone services. However, as the Florida Legislature wisely recognized, whatever benefits such a rate design policy has arguably achieved in the past, such as helping the United States achieve universal telephone service—the continuation of such policies frustrates another important policy goal of Federal and state regulators, namely, the establishment of efficient competition to as broad a base of business and residential consumers as is economically feasible—not to mention the economic costs that arise from price-cost distortions, *per se,* as I discuss further below.

The current rate design policy as it pertains to residential basic local services, frustrates that policy goal and by enacting § 364.164, the Florida Legislature has provided the Commission with the direction it needs to make competition work better for all Florida consumers.

Q. ARE THE COMPANIES' PLANS CONSISTENT WITH § 364.164 (1) (a) and (b)?

A. Yes. The companies' plans are consistent with and meet the criterion of § 364.164(1)(a) and (b). Below in Section III, I fully describe why I believe that the companies' plans are consistent with and meet those criteria.

Q. DR. GORDON, FROM A POLICY PERSPECTIVE DO YOU BELIEVE THAT IT IS APPROPRIATE TO ENGAGE IN THE TYPE OF REBALANCING THAT IS BEING CONTEMPLATED BY THE COMPANIES' PLANS?

A. Yes, I do. In this testimony, I describe fully why I believe that the companies' plans are consistent with the criteria of the Tele-Competition Act that the Commission shall consider and why the plans would likely result in increasing competitive activity in the state of Florida. Specifically, the plans will create a more attractive local exchange market for residential consumers and lead to enhanced market entry—two criteria that need to be considered by the Commission in addressing the companies' plans. By making the residential local exchange market more attractive, residential consumers will likely see more companies competing for their business, which will, in turn, result in more options for residential consumers, improved services and lower prices for their telecommunications services. From a policy perspective, it is appropriate to accomplish these tasks.

In addition, I describe below the history of rate design for basic local services in the United States and how the end result of these policies has been uneconomically low residential basic local prices; lower than what one would expect to find in undistorted competitive markets. Of course, states have differed in their implementation of these policies and, as a result, residential basic local service prices vary quite a bit from state to

state. In Florida, residential basic local prices are quite low when compared to prices in other states. In Table I below, I list the flat-rate charges for each of the three companies' lowest and highest rate groups compared to the national average flat-rate charges. As can be seen in the table, each of the companies' highest rate group is well below the national average of $14.55 per month.

Table I – Comparison of Verizon, BellSouth and Sprint's flat-rate residential basic local charges and National Average flat-rate charges

Company	Lowest Rate Group	Highest Rate Group	Unweighted Average	National Average (2002)
Verizon	$9.72	$12.06	$10.89	
BellSouth	$7. 57	$11.04	$9.31	
Sprint	$7.63	$11.48	$9.56	
National Average (2002)				$14.55

Source: Florida Senate Staff Analysis And Economic Impact Statement, p. 4, April 8, 2003; FCC *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service*, Table 1.1 July 2003, rates exclude Federal and State subscriber line charges, touch tone charge and taxes, 911 and other charges.

Q. HOW DOES THE FACT THAT FLORIDA HAS LOW RESIDENTIAL BASIC LOCAL TELECOMMUNICATIONS PRICES RELATE TO THIS PROCEEDING?

A. It relates to this proceeding in two important ways. First, the Legislature has correctly perceived that low residential basic local prices have led the residential local exchange

market to be less attractive to competitors than would be the case with more economically rational residential basic local prices. In Section III below, I describe fully why, from an economic perspective, I believe the Legislature is absolutely correct on this point. Put simply, holding all other factors constant, the lower the residential basic local price (when set governmentally without regard to whether the prices cover cost), the more unattractive those customers are to actual and potential competitors. Since Florida residential basic local prices are lower than those in many other states, and in fact lower than the national average, the problem facing potential new entrants as a result of these low rates is likely to be even more severe and pronounced in Florida than in other states. For this reason, it is even more important that Florida policymakers tackle this problem sooner rather than later.

Q. IS THERE ANY SUPPORT FOR YOUR ASSERTION THAT THE PROBLEM OF AN UNATTRACTIVE RESIDENTIAL MARKET MAY BE WORSE IN FLORIDA THAN IN OTHER STATES?

A. Yes, there is some support for my assertion. The FCC compiles data on local telephone competition. Its most recent report, released June 12, 2003 included a table that lists, for each state available, the percentage of lines provided to residential and small business customers by ILECs and CLECs.[4] The FCC provided data on 40 states and of those 40 states Florida ranked 30th in the percent of CLEC lines that were sold to residential and small business customers. This means that in 29 out of 40 states, CLECs' served proportionately greater residential customers than in Florida (see Figure 1 at the end of

[4] *See, Local Telephone Competition: Status as of December 31, 2002*, Table 11, Industry Analysis and Technology Division Wireline Competition Bureau, Federal Communications Commission.

this testimony). Florida ranks below states such as Georgia (58%), Alabama (52%), Louisiana (61%) and Virginia (70%) to name a few, all of which have higher residential prices. This provides some evidence that low residential basic local prices are having a negative impact on residential competition in Florida.

Q. YOU MENTIONED THAT THERE WAS A SECOND REASON WHY YOU BELIEVE THAT FLORIDA'S LOW RESIDENTIAL BASIC LOCAL PRICES, IN COMPARISON WITH OTHER STATES, ARE RELEVANT IN THIS PROCEEDING. WHAT IS THAT SECOND REASON?

A. The second reason has to do with affordability considerations and the flexibility this Commission has in rebalancing rates while still maintaining basic residential local rates that are quite affordable for most Floridia consumers. As mentioned above, the companies' prices for residential basic local services are generally well below the national average. However, Florida is not a poor state. According to data from the U.S. Bureau of Economic Analysis, Florida is on par with the national average in personal income per capita.[5] Specifically, as of 2001, the data show that personal income per capita in Florida was $29,047 compared to the national average of $30,413. Thus, the Commission has the flexibility to increase residential basic local prices, which are currently well below the national average, to more economically reasonable levels without making the services unaffordable to Florida consumers.

At the same time, Florida consumers will pay less for intrastate toll calls. The companies' rebalancing plan will lower the access charge component of the cost of producing

[5] Bureau of Economic Analysis, Regional Economic Information System, Table SA1-3.

intrastate toll calls. IXCs are required to pass these cost savings through to consumers in the form of lower prices. Thus, even with the increase in basic residential local rates, telecommunications will be just as affordable to Florida consumers as before, yet consumers will be better off because they will be consuming a different mix of telecommunications services that provides more value than they are currently receiving.

In addition, the Tele-Competition Act also requires that any increase in basic local service rates not apply to Lifeline customers and that the ILECs increase Lifeline participation to 125 percent of federal poverty income level.[6] These requirements further protect low-income consumers—and it is low-income consumers who would be most prone to disconnections in the face of price increases—thus providing the Commission with even more flexibility to approve the companies' rate rebalancing request with minimal concern that such a rate restructuring would negatively affect subscribership. I discuss this point, and other reasons why I believe the companies' plans will not negatively affect subscribership in Florida, in more detail in Section VI below.

Q. VERIZON, BELLSOUTH AND SPRINT ARE FILING THEIR PLANS AT THE SAME TIME. IS THERE ANY PUBLIC POLICY BENEFIT TO HAVING THE COMMISSION REVIEW THE COMPANIES' PLANS AT THE SAME TIME?

A. Yes. The benefits are at least threefold. First, to the extent that basic local rates are simultaneously adjusted closer to their costs throughout the territory of the three companies serving 98 percent of the ILEC customers, the better competition will be benefited and market entry enhanced. Certain providers who might be positioned to

[6] § 364.10(3)(a).

provide facilities–based basic local service (e.g. cable telephony, electric and wireless providers) will not necessarily configure their coverage areas based on the ILECs service territories. For them the potential staggered implementation of the rebalancing could be an obstacle to competitive entry. There are several areas within Florida where at least two of the three major ILECs provide service where it may be economical for a new entrant to provide service regardless of the ILEC boundary. For example, the Orlando/Central Florida (BellSouth/Sprint) area, Southwest Florida (between Sarasota and Ft. Myers (Verizon/Sprint)) area and the Pensacola – Ft. Walton – Destin -- Panama City (BellSouth/Sprint/BellSouth) area are three relatively compact geographic areas served in part by at least two of the three companies. Each of these areas might appropriately comprise the service territory of a single facilities–based entrant. When the price increases contained in the company plans are implemented and signal to these entrants that pricing distortions are being reduced on a broad basis, the competitors may be able to more efficiently execute their business plans.

Second, it is also important to avoid unnecessary marketplace distortions that could affect the purchase decisions of end-users. End-users normally make their purchase decisions based in large part on relative price differences among providers. If the rate-rebalancing is not implemented across all companies simultaneously, end-users will make these decisions based on incomplete and imperfect information as they see some providers' rates increasing while other providers' rates remain the same (at least temporarily). The risk will be that regulatory scheduling rather than the relative costs and benefits of various service offerings becomes the driving force behind consumers' decisions. For example, it is easy to imagine a situation involving two or more of the ILECs —where a CLEC might be able to offer service at a legitimate cost savings to all customers, but if re-balancing is

not done simultaneously perhaps only one firm's customers would respond to the competitive offer, because the other firm's rate increase had yet to be implemented. Coordinated rate rebalancing across all companies will ensure that potential competitors are not artificially disadvantaged when introducing new service offers by artificial boundaries, and that customers are not disadvantaged by incorrect and incomplete information driving their purchase decisions.

Third, the magnitude and timing of the access charge price reductions for the three companies would also benefit end users statewide. IXCs will be able to implement more meaningful price reductions if they can aggregate their access cost reductions into a single round of pricing changes.

Q. THE LEGISLATION PERMITS A COMPANY TO RESTRUCTURE ITS RATES OVER A MINIMUM OF TWO YEARS AND A MAXIMUM OF FOUR. EACH OF THE COMPANIES PLANS TO HAVE INTRASTATE ACCESS RATES REACH PARITY WITH INTERSTATE RATES OVER A TWO-YEAR PERIOD. DO YOU BELIEVE THIS IS A GOOD IDEA?

A. Yes I do, for several reasons. First, it is clearly permitted by the Tele-Competition Act. Second, it is a matter of economic principle that economic welfare is at its highest when prices are based on their underlying forward-looking costs and are not distorted. As I discuss in greater detail in Section III, prices that are distorted provide inferior signals for market participants and result in losses in consumer welfare because investment and purchase decisions by firms and consumers do not reflect the true costs that society incurs to provide the services. The companies' plans reduce these pricing distortions in the Florida telecommunications markets sooner rather than later and, by so doing, achieve

economic efficiency gains sooner as well.

Third, a possible reason why one would prefer a more gradual rate restructuring time frame has to do with avoiding consumer "rate shock". As the words imply, rate shock implies that the increase in price proposed by the company is so high, that consumers would be obviously and adversely affected. However, based upon my personal experience as a former commissioner, as well as what I have observed in other states, I do not believe that the yearly increase in basic local prices will result in rate shock.

Q. PLEASE EXPLAIN WHY YOU BELIEVE THAT THE COMPANIES' PLANS WILL NOT RESULT IN RATE SHOCK.

A. The companies' plans will result in relatively minor increases in a customer's basic local price. In addition, as I stated earlier, these price increases will not even apply to current Lifeline consumers and new Lifeline consumers who have become eligible as a result of the Tele-Competition Act raising the income threshold to 125% of the poverty level.

In addition, with the reduction and elimination of the in-state connection fees, many customers might not even experience a significant change in their total bill. If there is an increase in the customers' bill, it will likely result in large part from increased stimulation from lower long distance charges that represent real gains to consumers because they are now able to make more calls at the new lower prices.

Finally, the companies' plans compare favorably with other states that have approved rate-rebalancing plans that approved much larger increases than the companies' request Importantly, these states' price adjustments did not jeopardize universal service. In

Section VI, I also discuss the experience of some of the states that have already implemented serious rate rebalancing plans, including Massachusetts where I presided as Chairman through one such adjustment.

III. THE COMPANIES' PLANS WILL RESULT IN A "MORE ATTRACTIVE COMPETITIVE LOCAL EXCHANGE MARKET FOR THE BENEFIT OF RESIDENTIAL CONSUMERS" AND WILL INDUCE "ENHANCED MARKET ENTRY"

Q. HOW DO YOU JUDGE WHETHER THE COMPANIES' PLANS MEET THE CRITERIA OF § 364.164 (1) (a) AND (b)?

A. § 364.164 (1) (a) states that the companies' plans should remove the current support for basic local telecommunications services that is impeding the creation of a more attractive competitive local exchange market for the benefit of residential consumers. In order for the companies' plans to meet the first criterion, they must show that the plans remove—or at a minimum reduce—support for basic local telecommunications. By so doing, they create a more "attractive" competitive local exchange market, because the price to be competed against by new entrants is raised to more closely reflect the real economic costs of doing business. The second criterion for the Commission's consideration is § 364.164 (1) (b) which simply states that the plans should induce enhanced market entry and no distinction is made between residential or business consumers.[7]

[7] There are other criteria in § 364.164 (1) that I do not discuss but that are the subject of the companies' respective witnesses.

Therefore, in evaluating whether the companies' plans meet the criteria in these sections, I must ascertain whether the plans: (1) remove current support for basic local telecommunications services, and (2) will likely result in a more attractive competitive environment that would benefit residential consumers and induce enhanced market entry.

Q. DO THE COMPANIES' PLANS REMOVE CURRENT SUPPORT FOR BASIC LOCAL TELECOMMUNICATIONS SERVICES?

A. Yes, the companies' plans significantly decrease current support for basic local telecommunications services. The plans do this by reducing the prices of a service that has historically been set by regulators to provide an important source—but by no means the only source—of support for basic local services, namely, intrastate switched network access.

Q. WHY DO YOU BELIEVE THAT INTRASTATE SWITCHED NETWORK ACCESS CURRENTLY SUPPORTS BASIC LOCAL TELECOMMUNICATIONS SERVICES?

A. There are two reasons. The first is the historical rate design policy prevalent in telecommunications regulation in Florida and throughout the United States. As I mentioned earlier, historically, telecommunications rate design was premised on the policy goal—at times stated and sometimes left implicit—of keeping the price of basic local telecommunications low or as low as possible. This policy began early on in telecommunications regulation and was accomplished through the rate design mechanisms that were part and parcel of traditional regulation. Traditional regulation required two broad steps. The first was to determine a revenue requirement that was sufficient to meet the prudently incurred operating expenses and a reasonable return on prudently invested

capital. The second broad step was the rate design process, which determined the price of each regulated service to ensure that the regulated company had the opportunity to recover its revenue requirement from its regulated service.[8] Normally, a proper rate design process would require that the price of any service recover at least its underlying cost and, in addition, contribute to the firm's shared and common cost in some manner. At times that manner was consistent with economic efficiency goals—as when demand considerations were taken into account—and at other times it was more reflective of other policy considerations—as when an equal percentage markup was applied across the board to the different services.

For basic local services, however, in most instances the price was set on a residual basis without taking into consideration the underlying cost of providing basic local telecommunications. That is, the goal of residual pricing was to keep basic local prices low, or as low as possible, and to recover more revenue from other telecommunications services, constrained by what consumers were willing to pay for the non-basic telecommunications services and by—as competition began to become more prevalent in telecommunications markets—the threat of customers bypassing the public switched telecommunications network.

Prior to divestiture of AT&T in 1984, toll prices provided the bulk of support for basic local telecommunications services. As technological advances lowered the cost of providing toll services, toll prices did not decrease commensurately and were used as a

[8] I say opportunity to recover its revenue requirement because the regulatory process does not generally guarantee a regulated company a certain return, it only provides the regulated company the opportunity to earn a certain return.

means to support basic local telecommunications services—i.e., to keep the prices of basic local lower than would otherwise be the case. After divestiture of AT&T, interstate and intrastate switched network access services were substituted as a means of supporting basic local telecommunications services.

Notably, even after the substitution of price cap regulation for traditional regulation, the cross subsidies that were present under traditional regulation have been maintained.

The notion that intrastate switched network access services have been used as a source of support for basic local telecommunications is confirmed in the Florida *Senate Staff Analysis and Economic Impact Statement on the Tele-Competition Act*, where it states:

> According to the commission, intrastate network access service rates were set well above the incremental cost of providing the service in order to keep rates for basic local telecommunications service as low as possible and to encourage subscribership.[9]

The second reason why I believe that intrastate access services currently support basic local service is cost considerations. As described in the testimonies of their witnesses, the companies have established that the price of residential basic local telecommunications services is below forward-looking direct cost estimates. From an economic perspective, whenever the revenues from a service are insufficient to recover its forward-looking direct costs, that service is said to be in receipt of an economic subsidy. The source of the subsidy—including that for residential basic local services—comes from all those services

[9] *See* Senate Staff Analysis and Economic Impact Statement on CS/SB 654, April 8, 2003.

that are priced above their respective forward-looking direct costs. As a whole, these services contribute to the support of residential basic local. Because intrastate access services are priced significantly above their forward-looking direct costs, this means that intrastate switched network access services are supporting basic local service.

Q. DOES THIS IMPLY THAT THERE MAY BE OTHER SERVICES, BESIDE INTRASTATE ACCESS SERVICES, THAT MAY ALSO BE SUPPORTING BASIC LOCAL TELECOMMUNICATIONS SERVICES?

A. Yes, that is correct. In general, for multi-product firms, where there are significant amounts of shared and common costs, firms must, in the aggregate, price their services above forward-looking direct costs in order to earn sufficient revenues to remain viable. When one service is priced below its forward-looking direct costs, as is the case for residential basic local telecommunications services, other services that are priced above forward-looking direct costs are supporting the service that is priced below its own forward-looking direct costs.

The Florida Legislature, however, has specifically determined that it is the support provided by intrastate switched network access that is to be reduced. The Tele-Competition Act calls for rebalancing to take the form of lowering intrastate access rates to parity—over a 2 to 4 year period—with interstate switched network access rates and to simultaneously increase basic local telecommunications services by an amount sufficient to make up the revenue over the same time period. Under this approach, there is still no guarantee that residential basic local services recover at least their forward-looking direct costs once intrastate access rates are set to parity with interstate switched access rates. In fact, according to the companies' evidence, residential rates will still be below forward-

looking direct costs even when intrastate switched network access rates reach parity with the interstate rates.

Therefore, while the companies' plans are consistent with the criteria to be considered by the Commission, the plans do not result in the complete rebalancing of rates. Thus, there will still likely be some (lesser) distortions in prices even after the implementation of the plans.

Q. AS AN ECONOMIST, DO YOU BELIEVE THAT REBALANCING IS COMPLETED ONCE BASIC RESIDENTIAL PRICES ARE SET AT FORWARD-LOOKING DIRECT COSTS?

A. While having basic local services recover at least their underlying forward-looking direct costs is a good first step, it would not necessarily result in economically efficient prices. As I discuss in greater detail below in Section IV, economically efficient prices require that a multi-product firm's shared and common costs be recovered through markups on each service or product above forward-looking direct costs in a manner that least distorts economic efficiency. Therefore, to have economically efficient basic local prices would likely require that basic local services be priced above forward-looking direct costs. However, as markets become more competitive, markups will be limited by the need to be competitive with other firms in the market.

Q. HAVING ESTABLISHED THAT THE PLANS REMOVE CURRENT SUPPORT FOR BASIC LOCAL, § 364.164 (1) (a) PROVIDES THAT, AS A RESULT OF THE REMOVAL, THEY WILL RESULT IN A MORE ATTRACTIVE COMPETITIVE LOCAL EXCHANGE MARKET FOR THE BENEFIT OF RESIDENTIAL

CONSUMERS. WILL THE COMPANIES' PLANS MEET THIS CRITERION?

A. Yes, the companies' plans will create a more attractive competitive local exchange market for the benefit of residential consumers. Economic theory and empirical research both indicate that this will likely be the case. I discuss these two factors below.

Q. PLEASE DISCUSS WHY YOU BELIEVE THAT ECONOMIC THEORY SUGGESTS THAT THE COMPANIES' PLANS WILL LIKELY RESULT IN A MORE ATTRACTIVE COMPETITIVE LOCAL EXCHANGE MARKET FOR THE BENEFIT OF RESIDENTIAL CONSUMERS?

A. One of the key components of the companies' plans is that intrastate access revenues will be decreased in a revenue-neutral manner by increasing the price of (and revenue from) basic local telecommunications services for residential consumers. The cost information provided by the companies in this proceeding indicates that residential basic local telecommunications prices are currently below forward-looking direct costs. Increasing the price of a service, especially a service that is below forward-looking direct costs, will make for a more attractive market for actual and potential competitors. Competitors will not rationally try to compete against heavily subsidized prices.

Q. WOULD YOU PLEASE EXPLAIN WHY YOU BELIEVE THIS TO BE THE CASE?

A. In a market economy, prices are the essential tool that send signals to market participants that, in turn, determine market behavior and outcomes. For example, as prices increase or decrease, consumers alter their consumption decision because the value consumers place on goods and services changes in relation to price. Producers alter their production, investment and research and development decisions as well, because as prices increase or

decrease, profits change along with them. It is the search for profits that drives firms to enter or expand into new markets. As prices change, potential entrants into the market will be affected as well. Lower prices may act to keep new firms from entering the market and higher prices more reflective of cost will tend to attract new firms into the market.

Like any other firm, the investment decision of a telecommunications competitor is based on the present value of the cash flows that the investment project is likely to generate over the useful economic life of the project. Holding all other factors constant, when the price of a service increases, a cash flow analysis would show that the investment project becomes more profitable (or less of a loss) and thus more attractive. In the case before us, an increase in the price of basic local telecommunications service would increase the revenues from residential basic local services in a cash flow analysis, thus increasing the attractiveness of providing those residential services. As a result of rate rebalancing, where the companies plan to raise residential basic local prices, the residential local exchange market will look more attractive to all actual and potential telecommunications providers of residential services.

Q. WILL THE COMPANIES' PLANS ALSO PROVIDE INCREASED INCENTIVES FOR OTHER COMPETING TELEPHONY TECHNOLOGIES?

A. Yes. An important reason for opening local telecommunications markets to competition is the belief that technological change is proceeding so rapidly that competitive markets will do a much better job than monopoly of discovering which technologies can or cannot succeed in the long run. For example, access to customers for their telecommunications needs comes in the form of fixed-wireline access, wireless access, cable telephony,

Internet, and potentially satellite and even access via electric utilities. Of course, not all of these technologies will necessarily survive in the long run and competition will likely lead to a mix of technologies surviving and providing the lowest possible cost for each consumer's telecommunications needs.

However, in order for the lowest-cost mix of technologies to remain in the market, prices and the signals they send must not be distorted and must reflect the underlying cost of providing service. The companies' plans move positively in this direction and encourage new entrants—regardless of the chosen technology—to enter or expand in the marketplace because even competitors using lower-cost (or more attractive) technologies may not be able to compete against a subsidized ILEC price that does not fully reflect its own costs. This would be a loss for consumers and the Florida economy.

Q. IS THERE EVIDENCE THAT OTHER FORMS OF ACCESS ARE COMPETING WITH FIXED-WIRELINE ACCESS?

A. Yes. The Florida Commission has recognized the actual and potential substitution occurring between fixed-wireline and other forms of access, including wireless and emerging IP-telephony providers. As the Commission states:

> Regarding the substitution of technology and services, as they are being found to be close substitutes to traditional wireline services, both wireless and emerging broadband IP-telephony providers must be included in the analysis.[10]

[10] *See*, Florida Public Service Commission, *Telecommunications Market in Florida Annual Report on Competition As of June 30, 2002*, December 2002, p. 6.

In the same report, the Florida Commission cites nation-wide data indicating that about 5% of U.S. wireless subscribers have disconnected wireline service and conclude that substituting wireless for wireline services appears to be a national trend.[11] Moreover, as the same report concludes, Florida may be especially susceptible to this phenomenon because of the large population in Florida that also has residences in other states. For many of these consumers, "it makes little sense to continue paying for telephone service that sits idle much of the year when wireless enables them to stay connected wherever they are."[12]

The Florida Commission has also concluded that cable providers are competing directly with fixed-wireline providers. The Commission cites to national data that shows that by second quarter of 2002, there were 2.5 million cable telephony subscribers and that cable companies expect to see one-third of their digital cable households take cable telephony service by 2005.[13]

There is evidence that the Tele-Competition Act is already having a positive impact on competitors' incentive to enter and expand in the Florida market. On July 18, 2003, Knology, a provider of broadband and voice telephony services, announced it has entered into a definitive agreement to purchase certain assets from Verizon Media Ventures, Inc.[14] Knology offers local and long distance telephone service and its purchase of Verizon's Americast cable system will permit it to compete directly with Verizon. In its press

[11] *Ibid,* at 7.

[12] *Ibid*, at 9.

[13] *Ibid,* at 10.

[14] *See*, Knology Press Release July 18, 2003, *Knology Announces Agreement to Purchase Broadband Asset*.

release announcing its decision, Knology stated:

> In commenting on this transaction, Knology noted that the Tele-Competition Act recently enacted in Florida positively influenced its decision to expand operations in the state. This Act, as written by the Florida Legislature and supported by Governor Bush, laid the foundation for companies like Knology to enter the Florida market, and offer competitive services and products to consumers.

Q. IS THERE EMPIRICAL EVIDENCE THAT SUPPORTS YOUR VIEW THAT RATE REBALANCING WILL LIKELY MAKE THE RESIDENTIAL LOCAL EXCHANGE MARKET MORE ATTRACTIVE?

A. Yes, there is empirical evidence. Two of my colleagues at NERA investigated empirically whether low residential basic local rates were having any impact on competition in the states and, specifically, whether low rates were hindering the development of residential competition.[15] In that paper, the authors hypothesized that inefficient local exchange prices are having an impact on competition and that, specifically, low residential prices are inhibiting competition for residential customers. To test their hypotheses, the authors compared how local competition varied across the different states depending on how "unbalanced" were local exchange prices. Specifically, the authors estimated several cross-section econometric models of facilities-based competition, controlling for things such as cost and demand considerations in the different states. The authors also included several policy variables, including one that measured the degree to which residential local

[15] *See*, Agustin J. Ros and Karl McDermott, "Are Residential Local Exchange Prices Too Low? Drivers to Competition in the Local Exchange Market and the Impact of Inefficient Prices," in Michael Crew, *Expanding Competition in Regulated Industries*, Kluwer Academic Publishers, 2000.

exchange prices were "distorted" in each state. The authors summarized their results, as they pertained to residential competition, as follows:

> Using OLS and GLS estimates we found a significant and positive association between states that have more "balanced" tariffs and residential competition. For two measures of residential competition used in our data, we found that "rebalancing" tariffs by 10% leads to approximately a 9% and 13% increase, respectively, in residential competition.[16]

In addition, James Eisner (an FCC staff member) and Professor Dale E. Lehman performed a somewhat similar study.[17] Eisner and Lehman state in their conclusion:

> ...in some specifications, there appears to be less competitive entry (principally facilities-based) where residential rates are lower. These findings are generally statistically significant at the 90% level.[18]

Finally, another empirical study examined rate rebalancing in Latin America and found that rate rebalancing in some Latin American countries has led to increases in the supply of main telephone lines by providing better incentives to market participants.[19]

In summary, both economic theory and the empirical literature suggest that the

[16] *Ibid.*, at 167.

[17] *See*, James Eisner and Dale E. Lehman, *Regulatory Behavior and Competitive Entry*, presented at the 14th Annual Western Conference Center for Research in Regulated Industries, June 28, 2001. The authors' main motivation appears to have been ascertaining how regulatory behavior—as it pertains to unbundled loop prices and 271 entry—affects competitive entry. Nevertheless, they control for local exchange prices as well.

[18] *Ibid.*, p. 25.

[19] *See*, Agustin J. Ros and Aniruddha Banerjee, "Telecommunications Privatization and Tariff Rebalancing: Evidence from Latin America," *Telecommunications Policy,* 24 (2000) 233-252.

companies' plans—by setting residential rates at more economically efficient levels—would likely make the residential local exchange marketplace more attractive to actual and potential competitors.

Q. BUT ISN'T IT THE CASE THAT CLECS ALREADY HAVE ENOUGH INCENTIVES TO SERVE LUCRATIVE RESIDENTIAL CUSTOMERS?

A. Yes, it is probably the case that CLECs have enough incentive to serve a subset of residential customers, namely those customers that are very profitable either because the cost of serving them is especially low or because their volumes are unusually high. But the promise of the Tele-Competition Act is to ensure that competition for residential customers is as broad and diffuse as is economically feasible, and by better aligning the prices of residential basic local services with their underlying costs, a broader base of residential customers will obtain the benefits of competition.

Q. § 364.164 (1) (b) PROVIDES THAT THE COMPANIES' PLANS CONSIDER THE EFFECT ON ENHANCED MARKET ENTRY. WILL THE COMPANIES' PLANS MEET THIS PROVISION?

A. Yes, the companies' plans will induce enhanced market entry. Above, I have discussed how the plans would likely create a more attractive competitive local exchange market for the benefit of residential consumers. This is an example of how the plans will induce enhanced market entry.

In general, the companies' plans will provide for improved entry signals into the local exchange market by diminishing distorted price signals that may encourage uneconomic entry into the overpriced markets. Prices that are free of distortions will lead to several

economically-efficient outcomes known as allocative, technical and dynamic efficiencies. First, efficient pricing assumes that the marginal cost that society incurs to produce goods and services reflects the value that consumers place on the good or service consumed, (allocative efficiency). Second, optimal signals are provided to firms in the industry (e.g., whether to increase production or exit the industry) and to potential entrants contemplating entering the market. This ensures that it is the lowest cost firms that stay in the market and provide goods and services. In this way the use of society's scarce resources is minimized (technical efficiency). Third, prices that adequately cover costs ensure that appropriate incentives exist for improvement in technology, increased research and development and higher quality goods and services (dynamic efficiency).

Q. UNDER WHAT CONDITIONS CAN IT BE SAID THAT PRICES ARE FREE OF DISTORTION, AND ARE THE COMPANIES' CURRENT PRICES FOR BASIC LOCAL SERVICES FREE OF DISTORTIONS?

A. Prices are free of distortion when: (1) they recover at least the forward-looking incremental cost of production and (2) for multi-product firms, markups above incremental costs take into account demand characteristics in the market, subject, of course, to the need for the firm to meet competition. As described in the companies' cost testimonies, the companies' prices for basic local residential services are not recovering the forward-looking direct cost of production. As such, prices for these services do not meet the economic criterion that prices should at a minimum recover the forward-looking direct cost of production.

By adopting the companies' plans, however, the Commission will be reducing significantly the distortions in the price of intrastate access and residential basic local

services and achieving the economically efficient outcomes described above.

IV. OTHER ECONOMIC BENEFITS FROM THE COMPANIES' PLANS

Q. ARE THERE OTHER ECONOMIC BENEFITS THAT WILL LIKELY ARISE FROM THE COMPANIES' REBALANCING PROPOSAL?

A. Yes, there are other economic benefits that will likely arise from the companies' rebalancing proposals. Both economic theory and empirical research suggest that rate rebalancing will likely increase economic activity in Florida as increased competition brings benefits to Florida consumers of telecommunications services.

Q. WOULD YOU PLEASE DESCRIBE WHY ECONOMIC THEORY SUGGESTS THAT RATE REBALANCING WILL INCREASE ECONOMIC ACTIVITY IN FLORIDA?

A. Rate rebalancing consists of increasing the prices of services that are priced below forward-looking direct costs and reducing the prices of services that are priced significantly above forward-looking direct costs. As mentioned earlier in my testimony, the history of telecommunications rate design is such that residential basic local prices were set low and usage services (such as toll and intrastate access services) were set high.

However, economic theory teaches that economic efficiency (and overall consumer welfare) is at its highest level when prices of goods and services in an economy are set at forward-looking direct cost. Of course, in industries where there are significant fixed costs—that give rise to economies of scale—and in multi-product firms where there are

significant amounts of shared and common costs, pricing services at forward-looking direct cost does not permit the firm to earn sufficient revenues to recover all its costs. Under such conditions, markups above forward-looking direct costs are required. Specifically, as competition develops, those services that are more price elastic will likely receive a proportionately lower markup above cost than those services that are more price inelastic.

Q. PLEASE DESCRIBE HOW REBALANCING RESULTS IN INCREASED ECONOMIC ACTIVITY IN FLORIDA?

A. The companies' plans will lower intrastate access prices, which will in turn result in lower intrastate toll prices, as required by the Tele-Competition Act. As a result of the reduction in intrastate toll prices, Floridia consumers will use more toll services. This will create value for them that they are not now receiving. This, in turn, will reflect an increase in economic activity in Florida. In addition, and of more direct importance to this proceeding, more cost reflective prices for local service will send signals to competitors that will more efficiently guide their investment decisions, and in all likelihood, increase their investment beyond what it is in the face of today's artificially low prices. Thus, rebalancing will generate significant gains in economic activity in Florida. It is important to stress the point that demand for access to the network by consumers depends not only on the price of network access but it also depends on the value that consumers obtain (consumers' surplus) from using the network. While higher network access prices may, in theory, decrease the quantity of access consumed, the concomitant decrease in long distance price will increase the quantity of access consumed. Empirical evidence suggests

that, in net, we may well find that rebalancing leads to more consumers subscribing to the network.[20]

Q. IS THERE EMPIRICAL EVIDENCE THAT QUANTIFIES THE AMOUNT OF ECONOMIC BENEFIT THAT A REBALANCING PLAN CAN GENERATE?

A. Yes, there is empirical support. There have been several studies that have examined the welfare gains arising from rate rebalancing. One of the first studies found that, for the U.S. as a whole, the loss from overpricing long distance service to business and residential consumers in 1983 was around $10 billion, a finding that was confirmed in subsequent research.[21] More recent research confirms the significant gains in economic welfare that can be achieved from more economically rational prices. For example, a 2000 study by Robert Crandall and Leonard Waverman (a NERA colleague) found the total cost of the current rate design—i.e., lower basic local prices and higher long distance prices—to be anywhere between $2.5 to $7.0 billion per year, depending on the assumptions made.[22]

V. COST ISSUES

Q. WHAT IS THE CORRECT COST CONCEPT TO USE FOR DETERMINING WHETHER A SERVICE IS RECEIVING AN ECONOMIC SUBSIDY?

---

[20] *See,* Hausman, J., T. Tardiff, and A. Belinfante, "The Effects of the Breakup of AT&T on Telephone Penetration in the United States," *The American Economic Review*, Vol. 83, May 1993, pp. 178-184.

[21] *See*, John T. Wenders and Bruce L. Egan, "The Implications of Economic Efficiency for U.S. Telecommunications Policy." *Telecommunications Policy* 10 (1986): 33-40 and Lewis Perl, "Social Welfare and Distributional Consequences of Cost-Based Telephone Pricing." Paper presented at the Thirteenth Annual Telecommunications Policy Research Conference, Airlie, Va. April 23, 1985.

[22] *See*, Robert Crandall and Leonard Waverman, *Who Pays for Universal Service?: When Telephone Subsidies Become Transparent*, Brookings Institute, (2000), p. 119.

A. From an economic perspective, use of forward-looking direct costs (economic costs as opposed to embedded or historical costs) is the proper basis for determining whether a specific service is in receipt of an economic subsidy. The embedded cost or historical cost of an activity is a record of the costs a firm attributes to the pursuit of its activity in a given (past) accounting period. That cost reflects what the firm actually paid for capital equipment,[23] its actual costs of operating and maintaining that equipment, and other costs incurred in operating the enterprise. By contrast, the economic cost of an activity is the actual forward-looking cost of accomplishing that activity in an efficient manner. In contrast to embedded costs, forward-looking costs are those associated with present and future uses of the firm's (or society's) resources. Only these forward-looking costs are relevant for making present and future production and investment decisions, for placing resources in alternative uses, and for setting efficient prices for the services to be provided presently or in the future.

According to the evidence presented by the companies, their residential basic local rates are below forward-looking direct costs and I conclude, therefore, that those rates are in receipt of an economic subsidy.

Q. THE COMPANIES' PLANS ARE BASED UPON THE FACT THAT THE LOCAL LOOP IS NOT A SHARED OR COMMON COST AND THAT ITS COST IS CAUSED SIMPLY BY PROVIDING CUSTOMERS ACCESS TO THE TELEPHONE SYSTEM AND CANNOT APPROPRIATELY BE SPREAD

[23] Embedded costs also include the annual depreciation expenses associated with the stock of equipment that (1) was purchased in the current and previous years and (2) is still in use.

AMONG THE REMAINING TELEPHONE SERVICES. DOES THE FLORIDA COMMISSION AGREE WITH THIS APPROACH REGARDING THE LOCAL LOOP?

A. Yes, it does. In a report to the Florida Legislature in 1999, the Commission explicitly rejected the notion that the cost of the loop should be recovered from non basic local telecommunications service.[24] In that report, the Commission stated:

> Is the cost of local loop facilities properly attributable to the provision of basic local telecommunications service? By definition, yes. Section 364.02(2), Florida Statutes, defines "basic local telecommunications service as"
>
> > Voice grade, flat-rate residential and flat-rate single-line business local exchange services which provide dial tone, local usage necessary to place unlimited calls within a local exchange area, dual tone multi-frequency dialing, and access to the following emergency services such as "911," all locally available interexchange companies, directory assistance, operator services, relay services, and an alphabetical directory listing.
>
> Given such an identification of the cost object to be studied, the principle of cost causation leads one to the unavoidable conclusion that the decision to have local service leads to the incurrence of loop costs.[25]

[24] *See*, "Report of the Florida Public Service Commission on the Relationship Among the Costs and Charges Associated with Providing Basic Local Service, Intrastate Access, and Other Services Provided by Local Exchange Companies, in Compliance with Chapter 98-277, Section 2(1), Laws of Florida," Florida Public Service Commission Tallahassee, Florida February 15, 1999.

[25] *Ibid*, at 51.

VI. UNIVERSAL SERVICE WOULD NOT BE PUT AT RISK AS A RESULT OF THE COMPANIES' PLANS

Q. SHOULD THE COMMISSION BE CONCERNED ABOUT UNIVERSAL SERVICE?

A. While it is true that, in theory, as the price of basic local service increases, some consumers may decide the new price is above the value he or she places on the service—and may, as a result, decide to do without telephone service—I do not believe that, in practice, this would occur, or occur to such an extent as to jeopardize universal service in Florida. There are several reasons why I believe this is the case.

First, although low-income subscribers may be more sensitive to price increases than are middle and higher income users, the Tele-Competition Act does two things to help low income consumers. It provides that, in the event of an increase in residential basic local service prices, low-income consumers who are Lifeline customers will be exempted from the price increase; and, it expands the number of Lifeline-eligible customers to 125 percent of the federal poverty level. These steps should go far to address any problems of affordability.

Second, the price elasticity of demand for access to the network is quite low, meaning that the vast majority of consumers will continue to subscribe. Specifically, the price elasticity of demand measures the percentage impact on demand given a percentage change in price. Previous research has demonstrated that customers generally do not disconnect their

phone service when prices for basic local service increase.[26]

Third, and very importantly, in addition to its own price, the demand for residential basic local service is determined by the amount of value consumers obtain from using the services produced by the network, i.e., local calling, intraLATA toll, interLATA toll, vertical services and newer services such as broadband Internet access. As prices for these services decrease over time due to competitive pressure and technological innovation, the value that consumers place on having access to the network increases and so, therefore, does their demand to stay on the network.[27] The companies' plans call for rate increases phased in over a two year period and to the extent that prices for complementary goods decrease so will consumers' desire to remain on the network increase. This helps reduce, or may even offset, the negative effect of the price increase.

Finally, as discussed above, less distorted prices should provide better incentives for competitors to compete for residential consumers. Competition brings with it improved quality, different selection of goods and services bundled together in a way that customers find attractive, and lower prices. These factors provide additional reasons why during the phase-in period, customers will likely place increased value on subscribing to the network, thus mitigating the effects of any local rate increase.

To the extent the Florida Commission is concerned with the few remaining users who may

[26] *See,* Lester D. Taylor, (1994), *op. cit.*

[27] Hausman, J., T. Tardiff, and A. Belinfante, "The Effects of the Breakup of AT&T on Telephone Penetration in the United States," *The American Economic Review*, Vol. 83, May 1993, pp. 178-184.

decide to drop off the network it is also important to be aware that alternatives to the fixed network are growing and at least some customers may be turning to alternative means of meeting their communications needs. For example, the extraordinary growth of wireless service, driven by lower wireless prices and pricing plans that include a "bucket" of minutes provides customers with more meaningful opportunities to use wireless service as a substitute to wireline service.

Q. SHOULD THE COMMISSION BE CONCERNED IF CUSTOMERS DROP OFF THE FIXED NETWORK BUT INSTEAD RELY PRIMARILY ON OTHER FORMS OF ACCESS?

A. No. An important goal for policymakers has been to ensure that as many consumers as possible have access to the public switched telecommunications network, irrespective of how that access is obtained. When a customer drops off the fixed-line network and accesses the public network via wireless access, this is simply a substitution effect caused by the customer choosing between fixed and wireless access. This is not a universal service concern for policymakers.

Q. DR. GORDON, HAVE OTHER STATES IMPLEMENTED RATE REBALANCING?

A. Yes, there are other states that have implemented rate rebalancing including California, Illinois, Ohio, and in Massachusetts where I served as Chairman. Even in Maine, where by statute basic residential services are to be set as low as possible and where I also served as Chairman, they have recently approved a rebalancing plan.

Q. WOULD YOU PLEASE DESCRIBE THE RATE REBALANCING PROCESS IN

MASSACHUSETTS?

A. The process for changing prices in Massachusetts began before I became Chairman of the Massachusetts Commission and continued during my tenure. In Massachusetts, residential fixed monthly charges were increased significantly, with offsetting decreases in business, toll, and carrier access prices. The Massachusetts Commission early on after divestiture recognized the problems that historic pricing policies were creating, as other (especially institutional) barriers to market entry were being eliminated, and thus ordered a change in price structure:

> "properly defined incremental costs should be used as the primary basis for pricing all services, including local exchange service ...to the extent that current rates do not reflect an appropriate allocation of costs, the [MDPU] will, consistent with the need to avoid major discontinuities in rate levels, move toward that goal." IntraLATA Competition, D.P.U. 1731 (1985), p. 36-38.

> "Traditionally, the pricing of telephone service was based on a method whereby residential monthly exchange rates were priced below cost in order to promote universal service; and long-distance, toll, and business rates were priced above cost in order to subsidize residential exchange rates. While this system succeeded in serving a social purpose, it was a pricing scheme not conducive to the development of a fully-competitive market, in which the benefits associated with competition would be realized by all customers." NET, D.P.U. 93-125 (1994), pp. 10-11.

In Massachusetts, moving prices more in line with incremental costs required a significant shift in revenue recovery from usage-based prices, such as intraLATA toll and intrastate

carrier access, to fixed monthly prices for all classes of customers. In addition, because the MDPU found that there were no significant cost differences in serving different classes of customers, the price-rebalancing process also entailed a further shift in revenue recovery from business customers to residential customers. Of course, the necessary changes were not made overnight. The MDPU established a series of annual, revenue-neutral, price-rebalancing investigations in order to achieve its goal over time.

When the Massachusetts price-rebalancing process ended in January of 1994 (with the adoption of a price cap plan), the price for basic residential dial-tone service (1MR) had risen from about $3.00 per month in 1990 to $9.91 per month in 1994 (net of the SLC).[28] Comparable increases also occurred for residential flat-rate service (1FR), which was the most popular service in Massachusetts, at that time. Flat rate residential prices had ranged from $9.95 in rural areas to $12.38 in urban areas. The rebalancing process moved flat rate residential prices to $16.85 state wide. During this period, the average increase for residential consumers was $2.18 per year over four years and, according to the DTE, record evidence shows virtually no impact on residential telephone subscriber penetration.[29] Because the price-rebalancings were revenue-neutral, these increases were completely offset by decreases in prices for other services, notably residential and business intraLATA toll and carrier switched access.

Massachusetts was one of the first states to open toll and local markets to competitive

[28] I was Chairman of the MDPU for the last of these annual investigations.

[29] *See*, "Re Verizon New England, Inc. dba Verizon Massachusetts D.T.E. 01-31-Phase II," *Public Utilities Reports – 223 PUR4th*, p. 397.

entry, and the price rebalancing helped to lessen opportunities for uneconomic bypass and thus promoted the development of an efficient competitive process.

More recently, Massachusetts has continued to better align prices with their underlying costs by reducing switched access and increasing residential dial-tone rates. Specifically, the DTE authorized the ILEC to implement a one-time increase of $2.44 to its residential dial-tone line charge. In commenting on its decision, the DTE stated:

> Moreover, the department finds that with the $2.44 increase in the dial-tone line charge, competitive local exchange carriers (CLECs) can profitably enter and serve the residential telephone market in Massachusetts.[30]

The DTE concluded that a $2.44 increase will not harm the Department's universal service goals, based on similarity to the several, annual $2.18 increase in the early 1990s rebalancing plans and comparable increases in several other states and in the Federal subscriber line charge since 2000. For example, the Maine PUC approved a $1.78 increase in Verizon's basic monthly per line rate in May 2001 and the New York Public Service Commission authorized a two-year Incentive Plan which permitted an increase of $1.85 on March 1, 2002 and another $0.65 on March 1, 2003 for a total increase of $2.50 in the space of a year. The FCC's Federal subscriber line charge has increase from $4.35 in July 2000 to $6.50 in July 2003.

Q. PLEASE DISCUSS MAINE'S EXPERIENCE WITH RATE REBALANCING?

A. Significant rate rebalancing has been achieved in Maine in recent years, with no

[30] *Ibid*, p. 361.

noticeable impact on telephone subscribership levels. In 1997, the Maine legislature (M.R.S.A. 35-A, §7101-B) directed the Maine Public Utility Commission to establish, notwithstanding any other provision of state law, intrastate access rates that are less than or equal to interstate access rates established by the FCC (*i.e.*, parity with interstate access rates) by May 30, 1999. At the time, Bell Atlantic's intrastate access rates were $0.26 per minute, significantly higher than its then-current Federal interstate access rate of about $0.07 per minute.

Subsequently, on March 17, 1998, the Commission approved an Order (Docket No. 94-123 reopened) that approved a stipulation between Bell Atlantic-Maine (now known as Verizon-Maine) and a group of intervenors, including the Commission's Advocacy Staff and the Public Advocate. This stipulation allowed Bell Atlantic-Maine to increase its basic local exchange rates by a total of $3.50 by May 30, 1999, with steps of $1.50 in 1998 and $2.00 in 1999. This was followed by another increase of $1.78 in 2000.

Maine continues to have the highest telephone penetration rate in the country—about 98 percent of Maine's households have telephone service.[31] In addition, lower intrastate toll rates have benefited some customer classes, especially those customers in rural areas with relatively small toll-free calling areas.

Q. WHAT OTHER STATE EXPERIENCES DO YOU BELIEVE ARE RELEVANT?

A. In California in 1994, the Commission approved a rebalancing plan for GTE and Pacific

[31] MPUC Annual Report 2002, pp. 43.

Bell. GTE's residential rates immediately went from $9.75 to $17.25 while Pacific's residential rates went from $8.35 to $11.25.[32] Recently, as part of a rebalancing plan for Sprint's local telephone company in Ohio where intrastate access fees were lowered to mirror Federal charges, the Commission approved the creation of an end user charge of $4.10 for residential customers and $6.00 for single-line business.[33]

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

[32] *See*, Decision 94-09-065, *et. al.*, September 15, 1994.

[33] *See*, The Public Utilities Commission of Ohio, Case No. 00-127-TP-COI and 01-1266-TP-UNC, June 28, 2001.

ATTACHMENT A

NATIONAL ECONOMIC
RESEARCH ASSOCIATES
ONE MAIN STREET, CAMBRIDGE, MASSACHUSETTS 02142
TEL 617 621.0444 FAX 617.621 0336

nera
Consulting Economists

DR. KENNETH GORDON

BUSINESS ADDRESS

National Economic Research Associates, Inc.
One Main Street
Cambridge, MA 02142
617-621-0444

Dr. Kenneth Gordon, as of April 2001, is a Special Consultant with National Economic Research Associates, Inc. specializing in utility regulation and related issues. Prior to that date, Dr. Gordon was a Senior Vice President with National Economic Research Associates. He was Chairman of the Massachusetts Department of Public Utilities from January 1993 to October of 1995. He came to the Massachusetts Commission from the Maine Public Utilities Commission, where he held the office of Chairman from 1988 through the end of 1992. Prior to that, he was an Industry Economist at the Federal Communications Commission's Office of Plans and Policies. Prior to that, he taught at several colleges since 1965, the most recent position having been at Smith College.

Dr. Gordon was an active member of the National Association of Regulatory Utility Commissioners (NARUC) and served as president of that organization in 1992. He was also a member of the Executive Committee, and the Committee on Communications of NARUC. He has served as Chairman of the New England Conference of Public Utilities Commissioners Telecommunications Committee, and is a former Chairman of the Power Planning Committee of the New England Governors' Conference. He currently also serves on several boards and committees. Dr. Gordon has authored a number of publications and lectures widely on topics related to utility regulation.

Dr. Gordon is a graduate of Dartmouth College and holds a doctorate in economics from the University of Chicago.

EDUCATION

University of Chicago	Ph.D	1973
University of Chicago	M.A.	1963
Dartmouth College	A.B.	1960

EMPLOYMENT

April 2001 -	**National Economic Research Associates, Inc.**, Cambridge, MA Special Consultant
August 1996 -- March 2001	**National Economic Research Associates, Inc.**, Cambridge, MA Senior Vice President
November 1995 – July 1996	**National Economic Research Associates, Inc.**, Washington, D.C. Senior Vice President
October 1995	**Consulting Economist**
January 1993 - October 1995	**Massachusetts Department of Public Utilities** Chairman
October 1988- December 1992	**Maine Public Utilities Commission** Chairman
1980 - 1988	**Federal Communications Commission, Office of Plans and Policy** Industry Economist
1965 - 1980	**University and College Teaching** (most recently at Smith College)
1963 - 1964	**University of Chicago** Research Associate

CURRENT APPOINTMENTS AND MEMBERSHIPS

Telecommunications Policy Research Conference
Chair, 1995-1996
Board Member, 1994

Energy Modeling Forum (EMF 15, A Competitive Electricity Industry),
Stanford University
Member

American Economic Association

Transportation and Public Utilities Group, AEA

PAST APPOINTMENTS AND MEMBERSHIPS

National Association of Regulatory Utility Commissioners
Communications Committee, 1990 - 1995
Executive Committee, 1991-1995
President, 1992

New England Conference of Public Utility Commissioners
Power Planning Committee
Chairman

Governor's Electric Utility Market Reform Task Force
Co-Chairman

Boston University Telecommunications Forum
Advisor

Center for Public Resources, Legal Program to Develop Alternatives to Litigation
Chairman, Utilities Committee

Office of Technology Assessment, Advisory Panel on International Telecommunications Networks

Bellcore Advisory Committee,
Member and Chairman, 1993 to 1996.

ACTIVITIES

Participant in numerous regional and state committees, organizations, and task forces.

Participant in various NARUC/DOE conferences on gas and electricity issues.

Frequent speaker on electric, telephone and environmental issues nationally.

TESTIMONIES

Before the New York State Public Service Commission, on behalf of Rochester Gas & Electric Company, direct testimony regarding the determination of merger-enabled savings. May 16, 2003.

Before the Connecticut Department of Public Utility Control, on behalf of Connecticut Natural Gas Corporation and the Southern Connecticut Gas Company, Docket Nos. 99-09-03PH02, 99-04-18PH03 and 01-04-04, direct testimony regarding the determination of merger-enabled gas cost savings. April 28, 2003.

Before the Iowa Utilities Board, on behalf of Iowa Telecommunications Services, Inc., rebuttal testimony regarding economic support of the company's rate adjustment proposal. August 6, 2002.

Before the Public Utilities Commission of Ohio, on behalf of the Cincinnati Gas & Electric (Company), Case No. 00-813-EL-EDI and 01-2053-EL-ATA, direct testimony on the imposition of a moratorium on minimum stay requirements with respect to switching between default (POLR) service and competitive service. Filed June 4, 2002.

Before the Iowa Utilities Board, on behalf of Iowa Telecommunications Services, Inc., direct testimony regarding economic support of the company's rate adjustment proposal. May 24, 2002.

Before the Florida legislature, on behalf of Bell South (Florida), oral testimony on rate rebalancing issues in telecommunications. Presented on January 30, 2002.

Before the Public Utilities Subcommittee of the Maryland House Environmental Matters Committee, on behalf of Southern Maryland Electric Cooperative and Choptank Electric Cooperative, testimony on affiliate issues relating to cooperatives' participation in non-core markets. Filed January 22, 2002.

Before the Indiana Utilities Regulatory Commission on behalf of Citizens Gas & Coke Utility and Indiana Gas Co., Inc., Case Nos. 37394GC50S1 and 37399GC50S1. Affidavit on why the use of RFP bids as a transfer price is appropriate. Filed December 10, 2001.

Before the Alberta Energy & Utilities Board, on behalf of EPCOR Transmission Inc., rebuttal testimony addressing code of conduct issues. November 2, 2001.

Before the Illinois Commerce Commission on behalf of Commonwealth Edison Company, Docket No. 01-0423, surrebuttal testimony on designing delivery service tariffs in a way that support economic efficiency. October 24, 2001.

Before the Illinois Commerce Commission on behalf of Commonwealth Edison Company, Docket No. 01-0423, rebuttal testimony on designing delivery services in a way that supports economic efficiency. September 18, 2001.

Before the Alberta Energy & Utilities Board, on behalf of Atco Group of Companies, Affiliate Proceeding Before the Alberta Energy and Utilities Board, Testimony of Rebuttal Evidence, submitted August 3, 2001

Before the Massachusetts Department of Telecommunications and Energy, on behalf of Berkshire Gas Company, direct testimony on benefits of incentive ratemaking and policy rational supporting company's plan. July 17, 2001.

Before the New Jersey Board of Public Utilities on behalf of Verizon New Jersey, Surrebuttal Testimony on structural separation and code of conduct issues (Docket No. TO01020095). Filed June 15, 2001 (panel testimony co-sponsored by C. Lincoln Hoewing).

Rebuttal Testimony on behalf of Qwest Corporation, Application of Authority to provide in-region interLATA service (Docket No. INU-00-2). Filed May 23, 2001.

Before the State of New York State Public Service Commission on behalf of Verizon New York (Case No. 00-C-1945): Initial panel testimony on the New York State competitive marketplace. May 15, 2001 (co-sponsored with William E. Taylor).

Before the Commonwealth of Kentucky Public Service Commission on behalf of E.ON AG, Powergen plc, LG&E Energy Corp., Louisville Gas and Electric Company and Kentucky Utilities Company, (Case No. 2001-104). Direct testimony on the benefits to consumer's resulting from the acquisition of Powergen by E.ON AG. May 14, 2001.

Before the New York State Public Service Commission on behalf of New York State and Gas Corporation, Affidavit on the proper treatment of proprietary competitive information by regulators. Affidavit filed April 23, 2001.

Before the Virgin Islands Public Services Commission, Government of the Virgin Island of the United States (PSC Docket No. 526) on behalf of Innovative Telephone, Rebuttal testimony regarding rural exemption, request for interconnection for Innovative Telephone. Filed April 10, 2001.

Before the State of New York Public Service Commission on behalf of Energy East Corporation, RGS Energy Group, Inc., New York State Electric & Gas Corporation, Rochester Gas and Electric Corporation, and Eagle Merger Corp. Affidavit filed March 23, 2001.

Before the Indiana Utility Regulatory Commission on behalf of PSI Energy, Inc. (IURC Docket No. 41445-S1): Rebuttal testimony on the continued use of a purchased power tracker. Filed February 8, 2001.

Before the Pennsylvania Public Utility Commission on behalf of Verizon PA: Rebuttal testimony on why the structural separation model used in electricity does not apply to telecommunications. October 30, 2000.

Before the State of New York Public Service Commission on behalf of New York State Electric & Gas Corporation (Case 96-E-0891): Rebuttal testimony on market power analyses used in setting the backout credit. October 30, 2000. (Cosponsored with David Kathan.)

Before the Connecticut Department of Public Utility Control, on behalf of Connecticut Natural Gas Corporation (Docket No. 99-09-03, Phase II): Rebuttal testimony on role of incentive ratemaking. October 11, 2000.

Before the New York Public Utilities Commission on behalf of New York State Electric & Gas Corporation (Case 96-E-0891): Direct testimony on whether the backout credit set in a stipulation continues to be proper. October 4, 2000. (Cosponsored with David Kathan.)

Before the Virginia State Corporation Commission on behalf of Appalachian Power d/b/a/ American Electric Power Company (Docket Case No. PUA980020): Direct testimony regarding use of "asymmetric" transfer price rules. Filed September 20, 2000.

Before the Alberta Energy and Utilities Board, on behalf of ATCO Gas, ATCO Pipelines, and ATCO Electric: Direct testimony addressing affiliate issues. August 31, 2000.

Before the Iowa Utilities Board on behalf of Qwest Corporation (Docket No. INV-00-3): Direct testimony on deregulation of local directory assistance services. August 11, 2000.

Before the Connecticut Department of Public Utility Control on behalf of the Southern Connecticut Gas Company (Docket No. 99-04-18, Phase III): Late-filed Exhibit No. 159 (direct testimony) on the proper design of an incentive ratemaking plan. August 11, 2000.

Before the Connecticut Department of Public Utility Control on behalf of Connecticut Natural Gas Corporation (Docket No. 99-09-03 Phase II): Prefiled supplemental testimony addressing incentive rate-making issues. Filed August 11, 2000.

Before the Maine Public Utilities Commission on behalf of Central Maine Power Company. Surrebuttal testimony regarding the proper role of incentive ratemaking. August 10, 2000.

Before the Pennsylvania Public Utility Commission on behalf of Bell Atlantic PA (now Verizon PA): Direct testimony on the costs and problems with structural separation in telecommunications. June 26, 2000.

Before the Maine Public Utilities Commission on behalf of Central Maine Power Company (Docket No. 99-666): Rebuttal testimony on incentive rate-making issues. Filed June 22, 2000.

Before the Connecticut Department of Public Utility Control, The Southern Connecticut Gas Company Bench Request/Late file Exhibit (direct testimony) on proper implementation of incentive ratemaking. May 24, 2000.

Before the Public Utilities Commission of Ohio, on behalf of the Cincinnati Gas & Electric Company (Case No. 99-1658-EL-ETP): Supplemental testimony addressing shopping incentive and market power issues. Filed May 1, 2000.

Before the New York Public Service Commission on behalf of New York State Electric & Gas Corporation (NYSEG). Affidavit on the proper calculation of the billing credit customers would receive that switch. Filed April 20, 2000.

Before the Public Utilities Commission of Ohio, on behalf of the Cincinnati Gas & Electric Company: Direct testimony addressing shopping incentive and market power issues. Filed December 28, 1999.

Before the Federal Communications Commission, on behalf of Virgin Islands Telephone: Comments addressing Federal universal service support in the U.S. Virgin Islands. Filed December 19, 1999.

Before the Connecticut Department of Public Utility Control, on behalf of Connecticut Natural Gas Corp.: Direct testimony on performance based ratemaking. Filed November 8, 1999.

Before the Public Service Commission of Maryland, on behalf of Baltimore Gas and Electric Co., etc.: Reply testimony on "code of conduct" issues. Filed October 26, 1999.

Before the Illinois Commerce Commission, on behalf of Illinois Power Company: Rebuttal testimony addressing the pricing of metering and billing services. Filed October 21, 1999.

Before the Maine Public Utility Commission, on behalf of CMP Group, Inc.: Rebuttal testimony on issues related to acquisition of CMP by Energy East. Filed October 13, 1999.

Before the Illinois Commerce Commission, on behalf of Illinois Power Company: Direct testimony addressing the proper pricing of metering and billing services. Filed October 8, 1999.

Before the Public Service Commission of Maryland, on behalf of Baltimore Gas and Electric Co., etc.: Direct testimony on "code of conduct" issues. Filed October 1, 1999.

Before the Maine Public Utilities Commission, on behalf of Central Maine Power Co.: Direct testimony addressing the proposed alternative ratemaking plan. Filed September 30, 1999.

Before the Michigan Public Service Commission, on behalf of Ameritech Michigan: Direct testimony regarding economic consequences resulting from full avoided cost discount as applied to resale of existing contracts. Filed September 27, 1999.

Before the Public Service Commission of West Virginia, on behalf of Allegheny Power and American Electric Power: Rebuttal testimony on "code of conduct" issues. Filed July 14, 1999.

Before the Maine Public Utilities Commission, on behalf of Central Maine Power Co.: Direct testimony on the acquisition of CMP by Energy East. Filed July 1, 1999.

Before the Public Service Commission of West Virginia, on behalf of Allegheny Power and American Electric Power: Direct testimony on "code of conduct" issues. Filed June 14, 1999.

Before the Illinois Commerce Commission, on behalf of Commonwealth Edison: Rebuttal testimony addressing the design of delivery services tariffs. Filed May 10, 1999.

Before the Subcommittee on Energy and Power, on behalf of National Economic Research Associates: Statement addressing electric restructuring market power issues. Filed May 6, 1999.

Before the New Jersey Public Utilities Board, on behalf of the Edison Electric Institute: Direct testimony on the PUC's draft affiliate relations standards. Filed May 3, 1999.

Before the US District Court, Western District of Pennsylvania, on behalf of Allegheny Energy, Inc.: Expert report on regulatory issues regarding the recovery of stranded costs, filed May 1989

Expert report, on behalf of ICG/Teleport addressing the way in which Denver's ordinance allocates costs among users of public rights-of-way. Filed April 21, 1999.

Before the Ohio Senate Ways and Means Committee, on behalf of the Ohio Electric Utility Institute: Direct testimony regarding restructuring of Ohio electricity industry. Filed April 20, 1999.

Before the Federal Energy Regulatory Commission, on behalf of the Central Vermont Public Service Corporation: Rebuttal testimony regarding CVPSC's reasonable expectation to serve its Connecticut Valley affiliate. Filed April 8, 1999.

Before the Joint Committee on Utilities and Energy, on behalf of the Central Maine Power Company: Direct testimony on rate design for recovery of stranded costs. Filed March 23, 1999.

Before the Illinois Commerce Commission, on behalf of the Commonwealth Edison Company: Direct testimony on Commonwealth Edison's delivery service tariffs. Filed March 1, 1999.

Before the Indiana Utility Regulatory Commission, on behalf of Ameritech Indiana: Direct testimony on interconnection issues between RBOC and independent LECs. Filed February 19, 1999.

Before the Indiana Utility Regulatory Commission, on behalf of Ameritech Indiana: Direct testimony on competitive flexibility and alternative rate plan issues. Filed January 29, 1999.

Before the Rhode Island Public Utilities Commission, on behalf of Bell Atlantic-Rhode Island: Rebuttal testimony regarding economic consequences of granting a request by CTC to assume BA-RI retail contract without customer penalty or termination charges. Filed December 4, 1998.

Before the Michigan Public Service Commission, on behalf of Ameritech Michigan: Surrebuttal testimony regarding interconnection agreement. Filed November 9, 1998.

Before the Michigan Public Service Commission, on behalf of Ameritech Michigan: Direct testimony regarding interconnection dispute with a CLEC. Filed October 20, 1998.

Before the Wisconsin Public Service Commission, on behalf of the Edison Electric Industry: Surrebuttal testimony on utility diversification issues. Filed October 16, 1998.

Before the Wisconsin Public Service Commission, on behalf of The Edison Electric Institute: Supplemental direct testimony addressing DSM issues and electric restructuring. Filed October 13, 1998.

Before the Virgin Islands Public Service Commission, on behalf of the Virgin Islands Telephone Company: Testimony regarding the Industrial Development Corporation tax benefit. Filed October 5, 1998.

Before the Wisconsin Public Service Commission, on behalf of The Edison Electric Institute: Rebuttal testimony addressing affiliate interest issues in a traditional regulatory environment. Filed October 2, 1998.

Before the Wisconsin Public Service Commission, on behalf of The Edison Electric Institute: Direct testimony addressing affiliate interest issues in a traditional regulatory environment. Filed September 9, 1998.

Before the Maine Public Utilities Commission, on behalf of Bell Atlantic-Maine: Declaration describing state regulation and special tariffs filed by Bell Atlantic. Filed August 31, 1998.

Before the Vermont Public Service Board, on behalf of Bell Atlantic-Vermont: Rebuttal testimony regarding economic consequences of granting CTC's request to allow assignment of BA-VT retail contracts without customer penalty or termination charges. Filed August 28, 1998.

Before the Massachusetts Department of Telecommunications and Energy, on behalf of Bell Atlantic-Massachusetts: Direct testimony commenting on economic consequences of CTC's policy of allowing customers to assign service agreements, without customer penalty, on resold basis to CTC. Filed August 17, 1998.

Before the Vermont Public Service Board, on behalf of Bell Atlantic-Vermont: Testimony regarding the economic consequences of granting a request by CTC to assume BA-VT retail contract without customer penalty or termination charges. Filed August 14, 1998.

Before the Illinois Commerce Commission, on behalf of Ameritech Illinois: Direct testimony on rate rebalancing plan. Filed August 11, 1998.

Before the Maine Federal District Court, on behalf of Bell Atlantic: Expert report responding to CTCs anti-competitive claims against Bell Atlantic-North. Filed July 20, 1998.

Before the New Hampshire Public Utilities Commission, on behalf of Bell Atlantic: Direct testimony on petition by CTC to assume contracts that CTC had won for Bell Atlantic when it was an agent. Filed July 10, 1998.

Before the Virgin Islands Public Service Commission, on behalf of VITELCO: Testimony on use of consultants by regulatory commissions; benefits of incentive regulation and treatment of tax benefits. Filed July 10, 1998.

Before the Public Utility Commission of California, on behalf of The Edison Electric Institute: Comments on the enforcement of affiliate transactions rules proposed by the California Public Utility Commission. Filed May 28, 1998.

Before the Public Service Commission of New Mexico, on behalf of Public Service Company of New Mexico: Rebuttal testimony regarding the Commission's investigation of the rates for electric service of PNM. Filed May 6, 1998.

Before the Oklahoma Corporation Commission, on behalf of Southwestern Bell Communications: Reply affidavit regarding SBC's application for provision of in-region interLATA service in Oklahoma. Filed April 21, 1998.

Before the Public Utility Commission of Texas, on behalf of Southwestern Bell Communications: Rebuttal testimony regarding SBC's application for provision of in-region interLATA service in Texas. Filed April 17, 1998.

Before the Public Service Commission of New Mexico, on behalf of the Public Service Company of New Mexico: Direct testimony to address the economic efficiency, equity, and public policy concerning PNM's company-wide stranded costs. Filed April 16, 1998.

Before the Illinois Commerce Commission (Docket nos. 98-00013 and 98-0035), on behalf of The Edison Electric Institute: Rebuttal testimony addressing the adoption of rules and standards governing relationships between energy utilities and their affiliates as retail competition in the generation and marketing of electricity is introduced, filed March 25, 1998. Surrebuttal filed March 11, 1998.

Before the Public Utility Commission of Texas, on behalf of Southwestern Bell Communications: Testimony regarding SBC's application for provision of in-region interLATA service in Texas. Filed February 24, 1998.

Before the Kansas Corporation Commission on behalf of Southwestern Bell Telephone Company: Direct testimony regarding SBC's application for provision of in-region interLATA service in Kansas. Filed February 15, 1998. Rebuttal filed May 27, 1998.

Before the Maine Public Utilities Commission, on behalf of Bell Atlantic - Maine: Testimony regarding the reasonableness of restructuring rates. Filed February 9, 1998.

Before the Arizona Corporation Commission, on behalf of Tucson Electric Power Company: Rebuttal testimony regarding the Commission's rules for introducing competition into the electric industry. Filed February 4, 1998.

Before the Oklahoma Corporation Commission, on behalf of Southwestern Bell Communications: Affidavit regarding SBC's application for provision of in-region interLATA service in Oklahoma. Filed January 15, 1998.

Before the Arizona Corporation Commission, on behalf of Tucson Electric Power Company: Testimony regarding the Commission's rules for introducing competition into the electric industry. Filed January 9, 1998.

Before the Maine Public Utilities Commission, on behalf of Central Maine Power Company: Testimony regarding the Commission's proposed affiliate rules. Filed January 2, 1998.

Before the Indiana Utility Regulatory Commission, on behalf of Ameritech Indiana: Testimony regarding Ameritech Indiana's proposal for an interim alternative regulation plan. Filed October 29, 1997.

Before the Public Utility Commission of Texas, on behalf of Entergy-Gulf States Utilities: Rebuttal testimony regarding Entergy's "Transition to Competition" proposal. Fled October 24, 1997.

Before the Illinois State Senate, "Report on SB 55," on behalf of Illinois Power Company: Report and Testimony on proposed electric industry restructuring legislation in Illinois. Filed October 9, 1997.

Before the Indiana Utility Regulatory Commission, on behalf of Ameritech Indiana: Testimony regarding Ameritech Indiana's proposal for a new alternative regulatory framework. Filed July 30, 1997.

Before the Public Utilities Commission of Ohio, on behalf of Ameritech Ohio: Testimony responding to AT&T's "Complaint against Ameritech Ohio, Relative to Alleged Unjust, Unreasonable, Discriminatory and Preferential Charges and Practices." Filed July 7, 1997.

Before the New Jersey Assembly Policy and Regulatory Oversight Committee, on behalf of Public Service Electric and Gas Company: Testimony regarding transition cost recovery from self generators. June 16, 1997.

Before the New Jersey Board of Public Utilities, on behalf of Public Service Electric and Gas Company: Testimony regarding transition cost recovery from self generators. Filed June 6, 1997.

Before the Federal Communications Commission: Reply Affidavit in support of SBC Communications Inc.'s application to offer interLATA service in Oklahoma. Filed May 27, 1997.

Before the Corporation Commission, on behalf of Kansas Pipeline Partnership: Testimony regarding Purchase Gas Adjustment proceeding for Western Resources, Inc. Filed May 7, 1997.

Before the Public Utility Commission of Texas, on behalf of Entergy-Gulf States Utilities: Supplemental direct testimony regarding Entergy's "Transition to Competition" Proposal. Filed April 4, 1997.

Before the Illinois Commerce Commission, on behalf of Ameritech Illinois: Testimony regarding price cap regulation. filed April 4, 1997

Affidavit: in support of SBC Communications Inc.'s application to offer interLATA service in Oklahoma. Before the Oklahoma Corporation Commission and the Federal Communications Commission. Filed February 20, 1997 (OCC) and April 7, 1997 (FCC).

Before the Federal Communications Commission, on behalf of Ameritech: Reply comments on access reform. Filed February 14, 1997.

Before the Federal Communications Commission, on behalf of Ameritech: Paper on access reform, "Access, Regulatory Policy, and Competition", filed January 29, 1997.

Before the Wisconsin Public Service Commission, on behalf of Ameritech - Wisconsin: Testimony regarding interconnection arbitrations. Filed December 5, 1996.

Before the Public Utility Commission of Texas, on behalf of Entergy-Gulf States Utilities: Testimony regarding Entergy's "Transition to Competition" proposal. Filed November 27, 1996.

Before the California Public Utilities Commission: Rebuttal testimony in support of the joint application of Pacific Telesis Group and SBC Communications Inc. for approval of their merger, (Application No. 96-04-038). November 8-9, 1996.

Affidavit: in support of Florida Public Service Commission's appeal of Federal Communications Commission's interconnection order (CC Docket No. 96-98). September 12, 1996.

Before the New Jersey Board of Public Utilities on behalf of Bell Atlantic - New Jersey: "Economic Competition in Local Exchange Markets," position paper on the economics of local exchange competition filed in connection with arbitration proceedings, August 9, 1996 (with William E. Taylor and Alfred E. Kahn).

Federal Communications Commission (CC Docket No. 96-45) on behalf of BellSouth Corporation, "Comments on Universal Service," (with William Taylor), analysis of proposed rules to implement the universal service requirements of the Telecommunications Act of 1996, filed April 12, 1996.

Before the Senate Committee on Commerce, Science and Transportation on FCC Structure and Function: Suggested Revisions, March 19, 1996.

Before the Federal Communications Commission in the Matter of Pricing for CMRS Interconnection on behalf of Ameritech, March 4, 1996.

Before the Senate Committee on Commerce, Science and Transportation on Telecommunications Reform on behalf of NARUC, March 2, 1995.

Before the House Committee on Energy and Commerce Committee, Subcommittee on Telecommunications and Finance on H.R. 4789, the Telephone Network Reliability Improvement Act of 1992, on behalf of NARUC, May 13, 1992.

Before the Senate Committee on Commerce, Science and Transportation on H.R. 2546, a bill proposing the Infrastructure Modernization Act of 1991, on behalf of NARUC., June 26, 1991.

SPEECHES (partial list)

Remarks before the 1996 Telecommunications Policy Research Conference, "Interconnection Principles and Efficient Competition", Solomon's Island, MD, October 7, 1996.

Remarks before the American Bar Association Section of Antitrust Law, "Charging Competitors and Customers for Stranded Costs: Competition Compatible?" Four Seasons Hotel, Chicago, IL, September 19, 1996.

Remarks before the 1996 EPRI Conference on Innovative Approaches to Electricity Pricing, "Prices and Profits: Perceptions of a Former Regulator," La Jolla, California, March 28, 1996.

Remarks before the Innovative Fuel Management Strategies for Electric Companies Conference sponsored by The Center for Business Intelligence, "Anticipating the Impact of Fuel Clause Reversal on Fuel Management," Vista Hotel, Washington, D.C., March 15, 1996.

Remarks before Electricity Futures Trading Conference, "Electricity Futures Trading: What the States Are Doing," Houston, Texas, March 14, 1996.

Panelist, "Regulatory Panel: Who Has Jurisdiction?" Public Power in a Restructured Industry, Washington, D.C., December 8, 1995.

Participant, "Public Policy for Mergers in a Time of Restructuring," Harvard Electric Policy Group, Crystal City, Virginia, December 7, 1995.

Panelist, Roundtable on "Competitive Markets in Electricity and the Problem of Stranded Assets," Progress and Freedom Foundation, Washington, D.C., December 1, 1995.

Panelist on "The Range of Uncertainty" at the Illinois Electricity Summit, Northwestern University, Evanston, IL., November 28, 1995.

PUBLICATIONS

"Demand Side Management in Today's Electricity Market," Electricity Deregulation Commentary, Maine Policy Review, Winter 2001, pp. 19-21.

"Reforming Universal Service One More Time," Communications Deregulation and FCC Reform: What Comes Next?, Jeffrey A. Eisenach and Randolph J. May, editors (Washington, D.C.: The Progress & Freedom Foundation, pp. 61-84. Conference Edition, December 2000.

"Back to the Basics: Federal Legislation, Electricity Deregulation," *The Boston Globe*, June 7, 2000.

"Consumer Sovereignty, Branding, and Standards of Competitive Practice," *Electricity Journal*, May 2000, Volume 13, Number 4, pp.76-84 (with Wayne Olson)

"Open Entry, Choice, and the Risks of Short-Circuiting the Competitive Process" prepared for the Edison Electric Institute, March 20, 2000. (with Wayne Olson)

"Getting it Right: Filling the Gaps in FERC's Stranded Cost Policies," *The Electricity Journal,* Volume 12, Number 4, May 1999.

"Choose the Right Recipe for Electric Deregulation," *The Star-Ledger,* December 16, 1998.

Prepared for Edison Electric Institute, "Fostering Efficient Competition in the Retail Electric Industry: How Can Regulators Help Solve Vertical Market Power Concerns? First, Do No Harm," July 22, 1998 (with Charles Augustine).

"The FCC's Common Carrier Bureau: An Agenda for Reform," Issue Analysis Number 62: Citizens for a Sound Economy Foundation, September 26, 1997 (with Paul Vasington).

"What Hath Hundt Wrought?," *Wall Street Journal*, page A18, May 30, 1997 (with Thomas J. Duesterberg).

Book: "Competition and Deregulation in Telecommunications: The Case for a New Paradigm," Hudson Institute, Indianapolis, IN, 1997 (with Thomas J. Duesterberg).

"The Regulators' and Consumer Advocate's Dilemma", *Purchased Power Conference*, Exnet, 1993.

"Public Utility Regulation: Reflections of a Sometime Deregulator", *Public Utilities Fortnightly*, Nov. 1, 1992.

"Utilities as Conservationists: One Regulator's Viewpoint', in *The Economics of Energy Conservation*, proceedings of a POWER Conference, Berkeley, CA, 1992.

"Incentive Regulation in Telecommunications: Lessons for Electric and Gas", in *Incentive Regulation*, Proceedings and Papers, 1992 (Exnet).

Public Utilities Fortnightly, State Regulators' Forum, Contributor since 1992.

"Competition, Deregulation and Technology: Challenges to Traditional Regulatory Process", *In Your Interest*, Minnesota Utility Investor, Inc., 1992.

"Policing the Environment", *Institutional Investor*, October, 1992.

"Regulation: Obstructer or Enabler?", in *Proceedings; Cooperation and Competition in Telecommunications*, Conference sponsored by the Commission of the European Directorate General XIII, Rome, 1993.

"A Basis for Allocating Regulatory Responsibilities", in Clinton J. Andrews, (ed.), *Regulating Regional Power Systems*, Quorum Books, Westport, CT, 1995 (with Christopher Mackie-Lewis).

Book review: Stephen Breyer, *Breaking the Vicious Circle: Toward Effective Risk Reduction*, Harvard University, Press, 1992, in Federal Reserve Bank of Boston, Regional Review, 1994.

"Weighing Environmental Coasts in Utility Regulation: The Task Ahead", *The Electricity Journal*, October, 1990.

"The Effects of Higher Telephone Prices on Universal Service" Federal Communications Commission, Office of Plans and policy, Working Paper No. 10, March, 1984 (with John Haring).

"Are Recent FCC Telephone Rate Reforms a Threat to Universal Service" in Harry S. Trebing (ed.), *Changing Patterns in Regulation, Markets and Technology: The Effect on Public Utility Pricing*, University of Michigan Press, 1984 (with John Haring).

"A Framework for a Decentralized Radio Service, "a staff report of the Office of Plans and Policy, Federal Communications Commission, September, 1983 (with Alex Felker).

"L'impact de la television par cable sur les autres medias" (The Impact of Cable Television on other media in the United State"), *Trimedia*, numero 18019, printemps, 1983 (in French, also reprinted in Spanish).

"FCC Policy on Cable Ownership" in Gandy, Espinosa & Ordover, (eds.) *Proceedings from the Tenth Annual Telecommunications Policy Research Conferences*, ABLEX, Norward, N.Y., 1983.

"FCC Policy on Cable Crossownership", a staff report of the Office of Plans and Policy, Federal Communications Commission, November, 1981. (With Jonathan levy and Robert S. Preece; I was director of the study.)

"Economics and Telecommunications Privacy: A Framework for Analysis," Federal Communications Commission, Office of Plans and Policy, Working Paper No. 5, December, 1980. (With James A. Brown).

"The Effects of Minimum Wage on Private Household Workers" in Simon Rottenberg, (ed.), *The Economies of Legal Minimum Wages*, American Enterprise Institute, Washington, 1981.

"Deregulation, Rights and the Compensation of Losers, "in William G. Shepherd and Kenneth Boyer, eds., *Economic Regulation: A Volume in Honor of James R. Nelson*, University of Michigan Press, 1981. Also circulated as American Enterprise Institute Working Paper in Regulation, 1980.

"Social Security and Welfare: Dynamic Stagnation", *Public Administration Review*, March 1967.

INCIDENTAL TEACHING AND LECTURING

University and College
Yale School of Management and Organization
Harvard Law School, Telecommunications Seminar
Suffolk University Law School
University of Maine
Boston University

Other
Edison Electric Institute
(Electricity Consumers Resource Council)

June 18, 2003

ATTACHMENT B

FIGURE 1 – PERCENT OF CLEC LINES SOLD TO RESIDENTIAL AND SMALL BUSINESS CUSTOMERS BY STATE, AS OF DECEMBER 31, 2002

SOURCE: FCC, *Local Telephone Competition: Status as of December 31, 2002*