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BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

KJR

DIRECT TESTIMONY OF

**DR. JOHN W. MAYO**

ON BEHALF OF

ENRON POWER MARKETING INC.

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RE: PP&L RESTRUCTURING PLAN

JULY 2, 1997

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1 **I. QUALIFICATIONS AND PURPOSE OF TESTIMONY**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is John W. Mayo. My current business address is Department of Economics,  
4 The University of Tennessee, Knoxville, Tennessee, 37996.

5 **Q. WHAT IS YOUR OCCUPATION?**

6 A. I am an economist. My current position is Professor of Economics, College of  
7 Business, The University of Tennessee, Knoxville, Tennessee. Effective August 25,  
8 1997, my appointment will be as Visiting Professor of Economics, Business and Public  
9 Policy, Georgetown University, School of Business, Washington, D.C.

10 **Q. WOULD YOU PLEASE SUMMARIZE YOUR QUALIFICATIONS?**

11 A. Yes. I hold a Ph.D. in economics from Washington University, St. Louis (1982), with  
12 a principal field of concentration in industrial organization, which includes the analysis  
13 of antitrust and regulation. I also hold both an M.A. (Washington University, 1979)  
14 and a B.A. (Hendrix College, Conway, Arkansas, 1977) in economics.

15 I have taught economics at both the University of Tennessee and at Virginia  
16 Polytechnic Institute (VPI). Also, I have served as the Chief Economist, Democratic  
17 Staff of the U.S. Senate Small Business Committee. Both my research and teaching  
18 have centered on the relationship of government and business, with particular emphasis  
19 on regulated industries, including electricity and telecommunications. I have authored  
20 numerous articles and research monographs, and have written a comprehensive text  
21 entitled Government and Business: The Economics of Antitrust and Regulation, (with

1 David L. Kaserman), Dryden Press, 1995. A more detailed accounting of my  
2 education, publications and employment history is contained as Exhibit 2, JWM-1

3 **Q. WHAT IS THE PURPOSE AND THRUST OF YOUR TESTIMONY?**

4 A. I have been asked by Enron to describe the prospective benefits that may flow from a  
5 policy of successfully introducing competition into electricity markets in Pennsylvania.  
6 I have also been asked to provide the economic principles and guideposts that may  
7 facilitate the successful transformation of the electric utility industry in Pennsylvania  
8 from a monopoly environment to a competitive marketplace. To do so, in Section II, I  
9 will first describe a set of economic principles surrounding competition and efficient  
10 pricing that must be kept in mind as the Commission fashions its policies toward the  
11 industry. In Section II, I also describe the risks to the development of competition that  
12 are created when a vertically integrated regulated monopoly is faced with emerging  
13 competition at one vertical stage of production. In particular, I point out that it is in  
14 these situations that incentives are created for the incumbent utility to engage in anti-  
15 competitive monopoly leveraging strategies that are designed to exploit or extend the  
16 firm's market power. Finally, Section II closes with a description of the alternative  
17 policy responses available to deal with the monopoly leveraging problems. Among  
18 these various alternatives, I find that an approach that I characterize as a *Competition-*  
19 *Enabling Policy* offers the best hope for successfully introducing competition and its  
20 coincident benefits into the electric utility industry in Pennsylvania.

21 Section III of the testimony describes a variety of parallels between the current  
22 effort to introduce competition into the electric utility industry and the deregulation

1 efforts of several other industries including telecommunications, railroads, airlines and  
2 trucking. The parallels suggest that there are several valuable lessons for the  
3 Commission as it heads into the process of attempting to introduce competition into  
4 the electric utility industry in Pennsylvania.

5 In Section IV of the testimony, I turn to the requirements and ramifications of  
6 a Competition Enabling Policy approach to fulfilling the requirements of the recently  
7 enacted Electricity Generation Customer Choice and Competition Act (hereafter, the  
8 "Competition Act"). In particular, I describe a variety of actions that the Commission  
9 should undertake to (1) promote the emergence of competition and (2) protect the  
10 competitive process (including a recommendation that, to the extent the PUC identifies  
11 stranded costs claimed by PP&L that are deemed recoverable, such recovery should be  
12 made specifically contingent upon the actual progress made in opening PP&L's market  
13 to competition).

14 Finally, Section V concludes the testimony.

## 15 **II. ECONOMIC FRAMEWORK AND PRINCIPLES**

### 16 *Economics of Competition*

17 **Q. DO ECONOMISTS GENERALLY FAVOR COMPETITION AS A MEANS OF**  
18 **PROMOTING THE PUBLIC INTEREST?**

19 **A.** Yes. Economists advocate competition because of a variety of salutary economic  
20 characteristics it exhibits. First, price will be driven toward equality with marginal  
21 cost. This property, known as allocative efficiency, is important because it leads to the  
22 optimal allocation of society's resources to the industry. Second, price will be driven  
23 to equality with the minimum point on firms' long-run average cost. This is referred

1 to as productive efficiency. It implies that consumers are able to purchase the service  
2 at the lowest price that is consistent with the long-run survivability of the firms in the  
3 industry. Such efficiencies are not, in general, achieved under monopoly, even when  
4 the monopolist is subjected to regulatory controls.

5 In addition to these static efficiency properties, there is reason to believe the  
6 markets in which active interfirm rivalry exists will foster a more rapid rate of  
7 technological advance than will a protected monopoly. Thus, costs will tend to fall  
8 and new products will tend to be introduced more rapidly in rivalrous, open-entry  
9 markets.

10 **Q. ARE THERE OTHER NON-ECONOMIC REASONS TO FAVOR**  
11 **COMPETITIVE MARKETS?**

12 A. Yes, there are many non-economic reasons why one may prefer competition over  
13 regulated monopoly. Competitive markets are sometimes valued because they are  
14 thought to provide the maximum freedom for entrepreneurs to take whatever business  
15 risks they wish and to reap the rewards of success (or, of course, pay the penalty for  
16 failure). They also provide consumers the maximum freedom to switch suppliers when  
17 the price/service combinations offered by a given firm are not satisfactory. In  
18 addition, competition among firms will act to maximize the choices from which  
19 consumers may best satisfy their individual needs. Finally, one may prefer  
20 competition because of an underlying Jeffersonian distrust of any significant  
21 accumulation of economic (and, therefore, political) power.

1 Q. **HAVE THE BENEFITS TO COMPETITION BEEN EMBRACED BY**  
2 **POLICYMAKERS IN PENNSYLVANIA?**

3 A. Yes. The recently enacted Competition Act states that, "Because of advances in  
4 electric generation technology and Federal initiatives to encourage greater competition  
5 in the wholesale electric market, it is now in the public interest to permit retail  
6 customers to obtain direct access to a competitive generation market as long as safe  
7 and affordable transmission and distribution service is available at levels of reliability  
8 that are currently enjoyed by the citizens and businesses of this Commonwealth."  
9 Section 2802(3).

10 Q. **ARE THESE BENEFITS OF COMPETITION READILY ACHIEVED?**

11 A. In most markets, yes. There are, however, potential difficulties in the market for  
12 electricity. Specifically, market and regulatory conditions may create or perpetuate  
13 significant amounts of market power for the incumbent provider of electric power.  
14 Such market power can lead to the denial or erosion of the benefits of competition.

15 Q. **BEFORE PROCEEDING, COULD YOU DEFINE THE TERM "MARKET**  
16 **POWER?"**

17 A. Yes. Market (or, interchangeably, monopoly) power is the ability of a firm to control  
18 prices or exclude competition. Excepting textbook cases of pure competition, virtually  
19 all firms have some degree of market power. Because government intervention in  
20 markets is costly, the small and transient amount of market power held by most firms  
21 does not warrant government regulation. It is only where market power is significant  
22 that government regulation becomes warranted. In the absence of such significant

1 monopoly power a firm is said to be subject to effective competition.<sup>1</sup> Where,  
2 however, a firm possesses significant monopoly power, the economic efficiencies that  
3 typically stem from competition will be denied to consumers. In such cases, the  
4 preservation of the economic benefits of competition requires government supervision  
5 and, perhaps, direct regulatory control of a market.

6 **Q. WILL THE OPENING OF THE RETAIL STAGE OF ELECTRICITY SUPPLY**  
7 **ELIMINATE THE MONOPOLY POWER PRESENTLY HELD BY PP&L?**

8 A. Certainly PP&L will retain significant monopoly power over the provision of the  
9 distribution-stage activities not explicitly made open to competition. Even where  
10 “non-wire” activities that have historically been treated as part of the distribution stage  
11 (e.g., metering, billing and customer information services) are opened to competitive  
12 supply, it is far from clear that market conditions will quickly eliminate PP&L’s  
13 monopoly power over the provision of these activities. Moreover, and of perhaps  
14 larger consequence, the opening of electricity supply to retail-stage competition may or  
15 may not eliminate the significant monopoly power of PP&L in the provision of either  
16 the retail or generation stage of electricity supply.

17 **Q. ON WHAT BASIS DO YOU SAY THAT PP&L MAY RETAIN SIGNIFICANT**  
18 **MARKET POWER IN THE PROVISION OF ELECTRICITY AT EITHER THE**  
19 **GENERATION OR RETAIL-STAGE?**

20 A. Presently PP&L provides the vast majority of its retail-stage power needs internally.  
21 When considered part of a generation-stage market for power, it is likely that PP&L

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<sup>1</sup> For a more detailed discussion of monopoly power and effective competition, see David L. Kaserman and John W. Mayo Government and Business: The Economics of Antitrust and Regulation (Ft. Worth, TX: The Dryden Press, Harcourt Brace College Publishers, 1995), Chapter 4.

1 will (at least initially) supply the preponderance of the power demanded by retail-stage  
2 customers. That is, PP&L's market share of the generated power consumed by retail  
3 customers in its service territory is likely to be quite high. Given this large market  
4 share, the issue of whether PP&L retains significant market power at the generation  
5 stage will turn upon the extent of barriers to entry and expansion of generation  
6 services to customers residing in the PP&L service territory.

7 If PP&L has the ability to raise generation-stage prices of its power above  
8 competitive levels and its competitors do not have adequate capacity to expand their  
9 output (either through self-generation or by securing power from alternative generation  
10 sources), then PP&L will retain significant monopoly power over the generation stage  
11 in its service territory. Constraints on the supply of generated power may arise, for  
12 instance, by physical capacity constraints on the transmission facilities to PP&L's  
13 distribution grid.

14 In the absence of an effectively competitive supply of generation-stage power,  
15 PP&L can raise and maintain prices of generated power above competitive levels.  
16 These price elevations, should they occur, are an anathema to the goals of the  
17 Competition Act. Specifically, the retention of market power by PP&L at the  
18 generation stage can act to undermine the realization of the competitive benefits  
19 envisioned under the Competition Act for retail consumers of electricity.

1 *Monopoly Leveraging as a Threat to Competition*

2 **Q. ARE ANY SPECIAL CONCERNS RAISED IN SITUATIONS WHERE A FIRM**  
3 **PARTICIPATES IN MULTIPLE MARKETS, SOME OF WHICH ARE**  
4 **COMPETITIVE AND SOME OF WHICH ARE MONOPOLY?**

5 A. Yes. Issues of monopoly leveraging are raised in these situations. Specifically,  
6 *monopoly leveraging* is said to occur when a vertically integrated firm with monopoly  
7 power at one stage is able to extend or exploit that market power through strategic  
8 actions taken in related markets. That is, under certain conditions, it will be profitable  
9 for a firm with monopoly power in one or more markets to leverage that power into a  
10 similarly favorable position in some related market through various anti-competitive  
11 practices. An example of such conditions occurs when competitive and monopoly  
12 markets are linked vertically (i.e., one product is employed as an input in the  
13 production of another). The relevance of these vertical linkages becomes clear once it  
14 is recognized that the retail provider of electricity must rely upon the monopoly  
15 distribution facilities of the incumbent utility to be able to provide service to retail-  
16 stage customers. Thus, a vertical relationship exists between these services. In this  
17 case, a monopolist over distribution of electricity may be able to leverage this  
18 monopoly into an unfair advantage into either the related generation market or the  
19 market for retail provision of electricity. Where this occurs, the leveraging of the  
20 monopoly to an additional market serves as a device to exploit or extend the firm's  
21 existing monopoly power. Finally, aside from the potentially anti-competitive  
22 ramification of these practices, these same tactics may be used by partially regulated

1 firms to circumvent price regulations that extend only over monopoly services offered  
2 by the firm.

3 **Q. HOW MIGHT MONOPOLY LEVERAGING STRATEGIES SURFACE?**

4 A. Firms that have monopoly power will possess a natural desire to exploit that power.

5 In most situations this desire would be effectuated by monopoly pricing in the market

6 in which the firm possesses that power. Economic and legal analysis has found,

7 however, that under certain market conditions the desire to exploit extant market

8 power can spill over to related markets.<sup>2</sup> When a firm with significant monopoly

9 power in one market is able to exploit or extend that monopoly power in related

10 markets the firm is said to have engaged in monopoly leveraging. The specific market

11 conditions that have been shown to facilitate the emergence of monopoly leveraging

12 practices are:

- 13 1. Significant monopoly power in one or more markets;
- 14 2. A complementary or vertical relationship between the products involved;
- 15 3. The presence of price or profit regulation;

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<sup>2</sup> See, e.g., Michael D. Whinston "Tying, Foreclosure, and Exclusion," American Economic Review, Vol. 80, March 1990, pp. 837-859; Jose Carbajo, David De Meza and Daniel Siedmann "A Strategic Motivation for Commodity Bundling," Journal of Industrial Economics, Vol. 38, 1990, pp. 283-298; J.A. Ordover, A.O. Sykes, and R.D. Willig "Nonprice Anti-competitive Behavior by Dominant Firms toward the Producers of Complementary Products," in F.M. Fisher (ed.) Antitrust and Regulation: Essays in Honor of John J. McGowan, The MIT Press, Cambridge, MA., 1985; and Louis Kaplow "Extensions of Monopoly Power Through Leveraging," Columbia Law Review, Vol. 85, No. 3, pp. 515-555.

1           4.     The monopoly firm's influence on entry/exit, pricing, or investment  
2                     decisions by rival firms; and

3           5.     Consumers' potential for alternative, but inferior, sources of supply of  
4                     the monopolistic good or service.

5           Beyond these market conditions that have been linked to the emergence of  
6           monopoly leveraging, a sixth factor is also likely to enhance the prospects for  
7           monopoly leveraging. Specifically, economic logic indicates that in markets where  
8           consumers prefer to consume a vertically related bundle of services from a single  
9           provider, conditions for monopoly leveraging are enhanced. That is, to the extent that  
10          consumers value a bundled offering over a comparable unbundled offering, the ability  
11          of a firm that is uniquely positioned to offer the bundled service in a single package to  
12          the customer can "multiply" the strategic influence of actions taken in one market to  
13          related markets. For instance, discriminatory actions taken by an incumbent electric  
14          utility such as PP&L in the provision of distribution services will result in marketplace  
15          advantages in not only the directly affected market but also retail provision and  
16          perhaps generation-stage activities. Thus, discriminatory actions taken in one market  
17          will spill over to create profits from multiple markets.

18   **Q.   WHAT SPECIFIC TYPES OF MONOPOLY LEVERAGING STRATEGIES**  
19   **MIGHT BE UTILIZED BY A REGULATED FIRM WITH MONOPOLY**  
20   **POWER AT ONE VERTICAL STAGE OF THE PRODUCTION PROCESS?**

21   **A.   Anti-competitive monopoly leveraging strategies are numerous. The most common**  
22   **forms, however, are refusals to deal, tying and bundling, vertical price squeezes, price**  
23   **discrimination, and service/quality (nonprice) discrimination.**

1 **Q. WHAT ARE REFUSALS TO DEAL?**

2 A. Refusals to deal occur when a firm at one vertical stage refuses to engage in market  
3 transactions with a firm at a related vertical stage. If both the upstream and  
4 downstream markets are competitive, then refusals to deal have no anti-competitive  
5 consequences. If, however, a firm at one stage has significant monopoly power, say  
6 through control of the supply of one of the vertical stages of production, then refusals  
7 to deal may serve as a anti-competitive monopoly leveraging device. The most  
8 egregious case of such refusals to deal occur when a firm has control over an essential  
9 facility that competitors at a related vertical stage must rely upon to be viable. In such  
10 situations, refusals to provide the access to the monopoly service can irreparably harm  
11 competition in the related market.

12 **Q. HOW CAN BUNDLING OR TYING WORK TO HARM COMPETITION?**

13 A. Tying or bundling works as follows. Consider two products: A and B. Suppose a  
14 firm has a (legal) monopoly over product A, and, accordingly, is regulated in Market  
15 A. Suppose also that the firm is allowed to participate in an unregulated market, B.  
16 The monopolist over A can evade the profit-restraining influences of price regulation  
17 on A by requiring that purchases of A be accompanied by purchases of B as well. By  
18 increasing the price of B above the competitive level, it is possible for the partially  
19 regulated firm to capture significant monopoly profits despite regulation of its  
20 monopoly service.

21 **Q. HOW COULD A VERTICAL PRICE SQUEEZE OCCUR TO DAMAGE THE**  
22 **EMERGENCE OF COMPETITION?**

1 A. Vertical price squeezes can be an important leveraging strategy when the monopolized  
2 product or service is employed as an important input into or outlet for the production  
3 process of the firm's competitors. The most typical form of a vertical price squeeze is  
4 said to occur whenever a vertically integrated upstream monopolist establishes a price  
5 for its downstream, potentially competitive, service at a level such that it could not  
6 profitably sell that service at the prevailing downstream price if it were to pay the  
7 same price for the monopolized input as it charges to its downstream competitors. By  
8 controlling the price of the input (i.e., the cost to its downstream rivals), the vertically  
9 integrated monopolist may exclude competitors at the downstream stage by  
10 simultaneously raising their costs (by pricing the monopolized input high) and  
11 lowering their revenues (by pricing the output low). The resulting squeeze excludes  
12 retail-stage firms from successfully competing in the market even if they are as, or  
13 more, efficient than the vertically integrated upstream monopoly firm.

14 **Q. HOW DOES PRICE DISCRIMINATION HARM COMPETITION?**

15 A. Price discrimination can also be employed as a monopoly leveraging device. For  
16 instance, a firm providing a monopoly input to both its own affiliate and to  
17 competitors may charged different rates despite no cost differences in providing service  
18 to these different customers. For example, if not explicitly prohibited and enforced a  
19 distribution-stage affiliate of the vertically integrated electric utility may offer to  
20 provide the distribution function to its own retail operations at discriminatorily lower  
21 rates than to rival retail-stage firms. Alternatively, if overt price discrimination is not  
22 possible, it may be possible to accomplish this same effect by shifting "costs" between

1 the upstream and downstream services. In such situations, the monopoly provider of  
2 distribution facilities may claim to satisfy nondiscrimination pricing by nominally  
3 offering "cost-based" rates to retail-stage rivals and to itself. Yet, if these "cost-based"  
4 rates for distribution include costs that should properly be considered retail-stage or  
5 generation stage costs, then the rates are non-discriminatory in name only.

6 An additional discriminatory tactic is for a firm to offer a pricing scheme that  
7 is superficially equitable to all purchasers of the upstream input but is, in fact,  
8 discriminatory. For instance, a firm could provide a pricing schedule that provides  
9 discounts for firms that satisfy some condition of purchase, but in reality the condition  
10 is only satisfied by the affiliate or division of the monopoly. Thus, while in theory  
11 all firms are afforded the option of realizing discounts, the only competitor to qualify  
12 for such discounts is the affiliate or division of the upstream monopoly.

13 **Q. HOW MIGHT NONPRICE DISCRIMINATION BE EMPLOYED AS A**  
14 **MONOPOLY LEVERAGING DEVICE?**

15 A. The firm may employ variations in product quality or other nonprice terms of service  
16 to carry out a strategy of monopoly leveraging. For instance, if barred (say through  
17 regulation) from directly denying access to downstream competitors, an upstream  
18 monopolist may achieve virtually the same anti-competitive purpose by providing  
19 lower quality service or slower provisioning times to its downstream competitors.

20 **Q. ARE THERE ANY OTHER RISKS TO THE COMPETITIVE PROCESS**  
21 **ATTRIBUTABLE TO THE VERTICAL INTEGRATION OF THE MONOPOLY**  
22 **PROVIDER?**

23 A. Yes. If the vertically integrated firm can shift costs to the monopoly enterprise, then  
24 the result will be to collect costs that are incurred in the potentially competitive

1 segment of the industry from monopoly ratepayers. In this event, at least two  
2 pernicious effects occur. First, monopoly consumers of the monopoly service (e.g.,  
3 distribution) pay more than a competitive price for the distribution service they are  
4 provided. Second, the process of shifting costs away from the potentially competitive  
5 affiliate (e.g., generation or retail-stage activities) raises the specter of anti-competitive  
6 cross-subsidization that has the prospect of displacing sales of, or even the competitive  
7 presence of, rivals at the prospectively competitive stages.

8 **Q. CAN YOU PROVIDE AN EXAMPLE OF HOW THE MISASSIGNMENT OF**  
9 **COSTS ACROSS THE VERTICAL STAGES OF ELECTRICITY SUPPLY CAN**  
10 **CONFOUND THE EMERGENCE OF COMPETITION?**

11 A. Yes. Consider the activities that give rise to Sales Expenses in PP&L's Unbundling of  
12 Costs to Allocation Categories analysis. According to PP&L, approximately \$5  
13 million of "Distribution" costs are incurred annually in this category and are therefore  
14 reflected in the Company's proposed rates for Distribution Services.<sup>3</sup> But these  
15 activities are clearly associated with the sale of electricity not the distribution of  
16 electricity. Accordingly, any inclusion of the expenses associated with these activities  
17 in the rates for distribution which must be purchased by new entrants, such as Enron,  
18 on behalf of the customer is an affront to both economic efficiency and the emergence  
19 of competition. It is inconsistent with economic efficiency because prices (in this case,  
20 for distribution and retail-stage services) which play a critical role for allocating  
21 resources to their most efficient use are not based on the costs of providing these

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<sup>3</sup> See Exhibit JMK-2, Section III, p. 13, Direct Testimony of Joseph M. Kleha, PP&L Statement No. 3.

1 services. The affront to competition stems from the fact that, independent of the  
2 payments that new entrants must make to the incumbent, their participation as a retail-  
3 stage provider in Pennsylvania will require that they also engage in sales expense  
4 activities. Thus, if the new entrants pay for their own activities and are also required  
5 by regulation to reimburse the incumbent utility for incurring these expenses on behalf  
6 of the customer, they will effectively have paid for these activities twice. This double  
7 payment creates a fundamental cost asymmetry between the new entrant (which must  
8 incur all these expenses) and the incumbent (which after reimbursement from the new  
9 entrant pays none). Such cost asymmetries are a classic barrier to entry and a serious  
10 deterrent to the emergence of competition.<sup>4</sup> Fortunately, this is a regulatory barrier to  
11 entry that can be prevented through careful identification of expenses with the correct  
12 vertical-stage activities.

13 **Q. ARE THERE PARTICULAR COST CATEGORIES THAT ARE**  
14 **PARTICULARLY SUSCEPTIBLE TO MANIPULATION?**

15 A. Yes. Common costs are by their very nature more amorphous and difficult to quantify  
16 than direct costs. This leads to at least three potential treatments of such costs that can  
17 confound the emergence of competition: (1) misassignment of stage-specific common  
18 costs; (2) residual calculation of common costs; and (3) extrapolation of historically  
19 incurred common costs on a forward-looking basis. As documented by Mr. Reising,  
20 PP&L's cost calculation errs in each of these dimensions.

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<sup>4</sup> For a formal definition of entry barriers in economics, see William J. Baumol, John C. Panzar, and Robert D. Willig Contestible Markets and the Theory of Industry Structure, Harcourt Brace Jovanovich, New York, 1982, p.201.

1 *Policy Options for dealing with Monopoly Leveraging*

2 **Q. WHAT ARE THE POLICY OPTIONS FOR DEALING WITH THE PROSPECT**  
3 **OF MONOPOLY LEVERAGING IN A MIXED MARKET ENVIRONMENT?**

4 A. Because the exercise of monopoly leveraging strategies unnecessarily extracts resources  
5 from consumers and/or excludes more efficient rivals from successfully competing in a  
6 marketplace, public policy must be fashioned, in so far as possible, to minimize the  
7 potential for the exercise of such tactics. Three public policy options approaches exist.  
8 The first is best described as a "Rules Approach." Under this approach, the  
9 underlying monopoly is permitted to participate in all vertical industry segments and  
10 any concerns regarding the propensity of the incumbent monopolist to stifle the  
11 emergence of competition are dealt with by a set of regulatory rules. Specifically,  
12 under the Rules Approach, the emergence of potential competition at one vertical stage  
13 necessarily gives rise to the need to design, implement and enforce a set of regulations  
14 to protect both consumers and competitors from monopoly leveraging tactics. This  
15 approach was used in the pre-divestiture era when AT&T was permitted to participate  
16 in both local exchange and long distance markets. It is now widely perceived that it  
17 was the failure of the Rules Approach, in fact, to ensure and promote the emergence  
18 of competition that gave rise to the need for the divestiture of AT&T from the local  
19 exchange bottleneck facilities controlled by the Bell operating companies.<sup>5</sup> Indeed,

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<sup>5</sup> Indeed, the Assistant Attorney General for Antitrust who oversaw the government's antitrust case against the Bell System concluded that "Regulation is *inherently incapable* of ferreting out the subtle means of access discrimination and cross-subsidization that a monopolist can employ." Testimony of William F. Baxter before the Senate Committee on the Judiciary,

(continued...)

1 the vertically integrated monopoly over local exchange facilities was able to effectively  
2 engage in a host of monopoly leveraging practices despite the presence of a regulatory  
3 apparatus designed to prevent monopoly abuses.

4 The second approach to concerns regarding monopoly leveraging — adopted  
5 via the divestiture of the Bell operating companies from AT&T — is structural  
6 separation of the monopoly and competitive elements of the industry. The surgical  
7 separation embodied in this “Structural Separations Approach” drastically curtails the  
8 incentives and ability for the monopoly firm to engage in monopoly leveraging tactics.  
9 The reason, of course, is that where the monopoly firm is not in competition with the  
10 firms to whom it provides inputs, the monopolist will view the downstream firms  
11 primarily as *customers* rather than competitors. When the downstream firms are  
12 viewed in this light, it is clear that, under vertical separation, the regulated monopolist  
13 has an incentive to cooperate with its customers.

14 Neither of these two “solutions” to the problem of monopoly leveraging is  
15 without drawbacks. The Structural Separations approach successfully eliminates the  
16 wherewithal to engage in monopoly leveraging, but it sacrifices any economies of  
17 scope that may exist between the product lines that are separated. Thus, the freedom  
18 from monopoly leveraging may be purchased with the loss of cost economies that may  
19 spring from vertical integration. The Rules Approach allows for vertical integration  
20 and, therefore, would permit the achievement of any vertical economies that may be

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<sup>5</sup>(...continued)

Subcommittee on Antitrust, Monopolies, and Business Rights, and the Subcommittee on  
Technology and the Law, 103d Congress, 2d Session, September 20, 1994, p. 7.

1 present; but, in so doing, it fails to eliminate the incentives for monopoly leveraging  
2 and imposes a burdensome and potentially very expensive regulatory apparatus to  
3 control these incentives.

4 Costly, complex, and (in all likelihood) ultimately unsuccessful regulations  
5 must be adopted under the Rules Approach to attempt to prevent anticompetitive  
6 monopoly leveraging tactics on the part of the incumbent, vertically integrated  
7 monopolist.<sup>6</sup> For example, ongoing difficulties exist in many jurisdictions with the  
8 design, implementation and enforcement of an imputation standard that is meant to  
9 discourage the RBOCs from engaging in vertical price squeezes.<sup>7</sup> These, and other,  
10 examples of the quagmire of the extent of regulation required to seriously attempt to  
11 enforce pro-competitive nondiscriminatory behavior suggest that the Rules Approach is  
12 fundamentally inconsistent with the general policy effort in Pennsylvania toward a pro-  
13 competitive, deregulatory environment. Specifically, under the Rules Approach, the  
14 opening of one stage of the market, in this case retail sales, to competition may  
15 ironically lead to the imposition of *more* regulation.

16 The shortcomings of the Rules Approach and the Structural Separations  
17 Approach have given rise most recently to a third general, and I believe, superior  
18 approach to the issues raised by concerns over monopoly leveraging. This approach,

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<sup>6</sup> The incredibly detailed contractual requirements and obligations of the various participants (both incumbents and new entrants) in the local exchange telephone market provide ample evidence of such complexity.

<sup>7</sup> See, for example, the lineage of the debate regarding imputation in Maryland. Order No. 71668, Case No. 8585, Maryland Public Service Commission, December 28, 1994.

1 which I refer to as the "Competition-Enabling Approach" is based on a fundamental  
2 premise. Specifically, it presumes (consistent with history) that as long as a regulated  
3 utility retains significant monopoly power at one vertical stage of production,  
4 regulatory rules, however well-meaning and however earnestly applied, will ultimately  
5 succumb to the ingenuity of the vertically integrated firm to devise mechanisms that  
6 enable it to circumvent the rules and thereby exploit and/or extend its monopoly  
7 power. Thus, the ultimate solution to the problems posed by monopoly leveraging  
8 must involve public policies that maximize the likelihood that the underlying  
9 monopoly power, from which monopoly leveraging is made possible, is eliminated.  
10 That is, we should try to cure the disease (monopoly) while still treating the symptom  
11 (monopoly leveraging). This approach requires that policymakers actively pursue  
12 policies to *promote* the growth of competition in monopoly markets and to *protect* the  
13 incipient competitive process as it emerges in formerly monopolized markets.<sup>8</sup>

14 Under a Competition-Enabling Approach, regulators must tenaciously and at  
15 every opportunity seek to eliminate all regulatory and legal impediments to market  
16 entry. This quest to seek the removal of such barriers to entry is consistent with the  
17 Competition Act's mission. Moreover, it is critical that policymakers seek to eliminate  
18 any ability of the incumbent firms to engage in strategic actions designed to limit entry  
19 or engage in monopoly leveraging. Additionally, until such time that the monopolistic

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<sup>8</sup> It is critical to note that the Competition-Enabling Approach advocated here seeks to promote and protect competition, not to promote or protect the interests of individual market participants. Regulators' allegiances must unwaveringly remain to the competitive *process* rather than to individual market participants.

1 stage (in this case, distribution) of the traditional utility is subject to effective  
2 competition, the Competition-Enabling Approach dictates that these vital components  
3 be provided to alternative suppliers on efficient, pro-competitive terms. The challenge,  
4 then, is for policymakers to vigorously pursue the eradication of barriers to entry and  
5 to create an active policy that creates market conditions within which competition can  
6 flourish in formerly monopolized markets. To the extent that regulators are successful  
7 in this endeavor, competition will arise, first, in retail-stage and generation functions  
8 and then, perhaps, a variety of other dimensions of electricity supply.

9 **III. LESSONS FROM INTRODUCING COMPETITION INTO TRADITIONAL**  
10 **PUBLIC UTILITY INDUSTRIES**

11 **Q. THE ELECTRIC UTILITY INDUSTRY HAS TRADITIONALLY BEEN**  
12 **REGULATED AS A FRANCHISE MONOPOLY, YET THE COMPETITION**  
13 **ACT INDICATES A PUBLIC POLICY EFFORT TO OPEN ELECTRICITY TO**  
14 **COMPETITION. IS IT POSSIBLE TO DRAW UPON EXPERIENCES FROM**  
15 **OTHER INDUSTRIES TO FASHION A SOUND COMPETITION-ENABLING**  
16 **SET OF POLICIES?**

17 **A.** Yes. Beginning in the 1970s, federal and state regulatory and legislative bodies began  
18 to introduce competition into a variety of what had been traditional public utility  
19 industries. Markets opened to competition include, among others, long-distance  
20 telecommunications, railroad, airlines, and trucking.

21 **Q. IS THERE ANY EVIDENCE THAT INCREASED COMPETITION IN**  
22 **TRADITIONAL UTILITY MARKETS HAS PRODUCED THE SORTS OF**  
23 **BENEFITS YOU HAVE INDICATED OCCUR WITH COMPETITION?**

24 **A.** Yes. There is substantial evidence of such benefits. For example, not too many years  
25 ago a single monopoly firm provided virtually the entire set of telecommunications  
26 services, ranging from Customer Premise Equipment ("CPE") to long distance calling.

1 Policy decisions to open telecommunications services to competition have subsequently  
2 led to a host of consumer benefits in the affected markets. For example, the  
3 competitive pricing and explosion of consumer choice that has occurred in the CPE  
4 market provide stellar examples of the benefits of competition. Similarly, the  
5 experience with interLATA 1+ competition (both interstate and intrastate) in  
6 telecommunications markets reflects favorably upon the merits of competition.<sup>9</sup> Here,  
7 the combination of the implementation of equal access, presubscription, and the entry of  
8 new firms have led to substantial price reductions and the rapid proliferation of new  
9 services. These benefits are driven by the competitive rivalry that firms experience as  
10 they independently strive for the patronage of long distance customers.

11 **Q. SPECIFICALLY WHAT ROLE DID THE PRESUBSCRIPTION PROCESS**  
12 **PLAY IN OPENING THE INTEREXCHANGE INDUSTRY TO**  
13 **COMPETITION?**

14 A. Presubscription played a vital role. Specifically, the presubscription process required  
15 that firms declare their interest in servicing customers, place their names on a ballot,  
16 and for consumers to proactively choose among the various carriers. Not only did this  
17 process promote the early development of consumer choice, but it also ensured that the  
18 traditional monopoly provider would not be guaranteed the business of customers  
19 simply by virtue of its historical affiliation with those customers.

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<sup>9</sup> See David L. Kaserman and John W. Mayo, "Long-Distance Telecommunications: Expectations and Realizations in the Post-Divestiture Period," in Michael A. Crew, Editor, Incentive Regulation for Public Utilities, (Boston: Kluwer Academic Publications), 1994. See also, R. Kaestner and B. Kahn, "The Effects of Regulation and Competition on the Price of AT&T Intrastate Telephone Service," Journal of Regulatory Economics, Vol. 2 (1990), pp. 1-15.

1 Q. IS THERE ANY INDICATION IN ELECTRICITY MARKETS THAT  
2 COMPETITION WILL LEAD TO CONSUMER BENEFITS?

3 A. Yes. Although the experience with electricity competition is more limited, it provides  
4 similar evidence of the benefits from opening markets to competition. Specifically,  
5 while the vast majority of electric power is provided today by vertically integrated  
6 monopoly providers, there are areas in the country where competition between firms to  
7 supply retail-stage power exists.<sup>10</sup> In a recent study of the effects of competition in the  
8 electric utility industry, Professor John Kwoka found considerable benefits.

9 Specifically, after analyzing the effects of competition on both costs and prices,

10 Professor Kwoka found:

11 The effect of competition on price ...[is]...a 3.4 percent decrease  
12 in average price by competitive utilities and is statistically  
13 significant... Together with the previously estimated effect of  
14 competition on average costs (a 16 percent reduction), this  
15 implies a total competitive effect on cost plus price of nearly 20  
16 percent.<sup>11</sup>

17 Q. ASIDE FROM THE POTENTIAL BENEFITS OF COMPETITION, ARE THERE  
18 OTHER LESSONS TO BE GLEANED FROM THE EXPERIENCES OF  
19 OPENING OTHER MARKETS TO COMPETITION?

20 A. Yes. An important lesson is that as laudable as the end-state of competition may be,  
21 simple policy declarations embracing the concept of competition do not generate either  
22 competition or its attendant benefits. For example, policy efforts to open local

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<sup>10</sup> Cleveland, Ohio is the largest of the competitive jurisdictions in the United States. There, Cleveland Public Power and Cleveland Electric Illuminating Co. are engaged in direct competition for retail customers in roughly one-half the city.

<sup>11</sup> See John E. Kwoka, Jr. Power Structure: Ownership, Integration, and Competition in the U.S. Electricity Industry, Kluwer Academic Publishers, Boston, MA., 1996, p.91.

1 exchange telephone markets to competition have been going on for roughly a decade  
2 and yet local exchange telephone companies still retain significant monopoly power  
3 over the provision of a number of telephone services. Similarly, cable TV industry  
4 was deregulated in 1984 under the notion that competition and deregulation would  
5 provide consumer benefits. Yet many consumers faced vastly higher cable TV prices  
6 in the wake of that "competition" because while deregulating the pricing of cable TV  
7 services, policymakers neglected to fully remove barriers to entry into the industry.

8 Two very important policy conclusions emerge for the Commission in the  
9 present instance. First, especially in light of the embrace of competition by the  
10 Competition Act, the Commission must *vigorously* act to open as much of the  
11 electricity supply process as possible to competition. The Commission must do  
12 everything in its power to maximize the freedom of consumers to choose their  
13 electricity supplier and to ensure that the competitive process is protected. Moreover,  
14 given the prospective benefits to consumers, these actions should be undertaken as  
15 quickly as possible. Second, as the transition to competition occurs, it is very likely  
16 that the traditional monopoly provider will retain significant amounts of monopoly  
17 power. Accordingly, it is critical that the steps of the policy process proceed in the  
18 order of: (1) opening markets to the maximum extent feasible; (2) observing the  
19 growth of competition; and, (3) deregulating when supply is produced under conditions  
20 of effective competition. As shown by experience in other industries, this policy path  
21 will maximize the prospects for consumers to reap the ultimate benefits from  
22 competition. Conversely, if the Commission errs in this regard by granting

1 deregulation in the absence of the end of significant monopoly power, then the  
2 deregulation will be premature and the result will be that competition and its attendant  
3 benefits will vanish.

4 **IV. REQUIREMENTS OF A PRO-COMPETITIVE POLICY**

5 **Q. CAN YOU PLEASE DESCRIBE THE POLICIES YOU ENVISION AS**  
6 **NECESSARY TO PROMOTE COMPETITION IN THE SUPPLY OF**  
7 **ELECTRICITY?**

8 A. The first major task for the Commission is to minimize, if not eliminate, regulatory  
9 barriers to entry into electricity. Regulatory conditions for entry at the retail stage  
10 should be clearly specified and not burdensome. The Competition Act clearly supports  
11 this initiative to eliminate regulatory barriers to entry into the provision of retail-stage  
12 electricity. More generally though, there may be a variety of functions that are  
13 presently provided by the incumbent utility that could more efficiently be provided by  
14 an alternative supplier. For example, it is far from clear that the Revenue Cycle  
15 Services such as metering, meter reading, billing, and handling customer billing  
16 records are best handled by a single traditional public utility provider.<sup>12</sup> Consequently,  
17 it is critical that the Commission open the various activities of electricity supply to the  
18 maximum extent possible. By opening these functions to competition at least two  
19 benefits will occur. First, consumers will have choices regarding which of the various  
20 producers shall provide these services. And second, by opening these functions to

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<sup>12</sup> Indeed, these non-wire functions of the traditional electricity supply process do not appear to exhibit the traditional characteristics of natural monopoly supply and I am unaware of any economic research to have indicated that such functions are, indeed, naturally monopolistic.

1 competition, the Commission can enable markets to begin to provide competitive  
2 discipline on the supplier(s) of these functions to ensure that they are provided with  
3 maximum efficiency. To the extent that effective competition arises in the provision  
4 of these functions, consumers will enjoy the consequent benefits.

5           Yet another critical component of the elimination of barriers to entry is for the  
6 Commission to allow alternative electricity suppliers to opt to be the full service  
7 provider for customers. That is, under a Competition-Enabling Policy, alternative  
8 electricity companies such as Enron may choose to directly solicit retail-level  
9 customers and take responsibility for the quality of service provided to those retail  
10 customers as agent for the customer. In this case, the alternative provider of retail-  
11 level power would have the option of serving as a customer's primary point of contact  
12 and would retain responsibility for ensuring that the customer is satisfied. The  
13 alternative supplier then should be able to provide retail-stage non-distribution  
14 functions along with generation while purchasing the wire-service distribution services  
15 of the traditional public utility (as agent for the end-user). The consequence of this is  
16 that alternative suppliers be given the latitude to serve as the primary, responsible  
17 point of contact for residential, commercial and industrial customers. That is, a  
18 necessary step on the path to full enabling competition is to grant alternative suppliers  
19 complete authority to provide (independent of the incumbent) all of the types of

1 utility/supplier/residential customer interactions identified by the Commission in its  
2 "Tentative Order" entered on April 25, 1997.<sup>13</sup>

3 This leads to a second critical component of the Competition-Enabling  
4 Approach. Specifically, the traditional public utility provider of electricity services  
5 should not be permitted to exclusively offer all non-generation services on a bundled  
6 basis. Because it is possible that alternative providers may be more efficient at retail-  
7 stage non-wire services (e.g., meter reading), the traditional public utility should be  
8 required to provide its various services on an unbundled basis. Unbundling of the  
9 non-generation functions can provide a number of benefits. For instance, unbundling  
10 permits suppliers to utilize the non-generation facilities of the traditional utility on  
11 either an aggregate, bundled basis or to utilize only those distribution functions that the  
12 alternative electricity company feels are being most efficiently provided by the  
13 incumbent.

14 By unbundling the distribution functions (Energy Delivery Services) from  
15 Revenue Cycle Services it is possible for the alternative supplier to purchase only the  
16 Energy Delivery functions which it needs. Decisions about whether to utilize the  
17 Revenue Cycle functions of the incumbent or to self-supply these functions can then  
18 be based on the price charged by the traditional supplier for these functions. If, based  
19 upon the prices charged by the traditional utility for these services, the new entrant  
20 decides that it can perform these functions more efficiently than the incumbent, then

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<sup>13</sup> See Tentative Order, Docket No. M-00960890F0011, p. 5.

1 both the competitive process and consumers will be made better off by permitting the  
2 unbundling.

3 **Q. YOU SAID THAT IF THE MARKET FOR ELECTRICITY SUPPLY IS**  
4 **OPENED TO COMPETITION AND UNBUNDLED IT WILL ALLOW NEW**  
5 **ENTRANTS TO OPT TO EITHER SELF-SUPPLY OR PURCHASE VARIOUS**  
6 **REVENUE CYCLE FUNCTIONS FROM THE INCUMBENT. WHAT DOES**  
7 **THIS SUGGEST ABOUT THE ROLE OF REGULATION AND PRICES**  
8 **REGARDING THESE REVENUE CYCLE FUNCTIONS?**

9 A. Once opened to competition and available on an unbundled basis, it will be necessary  
10 for the Commission to: (1) establish a mechanism for distinguishing whether these  
11 functions are provided subject to conditions of significant monopoly power or,  
12 alternatively, under conditions of effective competition; and (2) establish a pricing  
13 policy that reflects the degree of competition in the provision of these functions.

14 **Q. SPECIFICALLY WHY WILL IT BE NECESSARY FOR THE COMMISSION**  
15 **TO DISTINGUISH WHETHER THE NON-WIRE (REVENUE CYCLE)**  
16 **FUNCTIONS ARE SUBJECT TO SIGNIFICANT MONOPOLY POWER OR**  
17 **EFFECTIVE COMPETITION?**

18 A. If these functions continue, as today, to be provided on a monopoly basis and are  
19 subject to regulatory or economic barriers to entry, then it will be necessary for the  
20 Commission to ensure supply under conditions that emulate competitive supply.  
21 Alternatively, if and when these functions become subject to effectively competitive  
22 supply, then the Commission can safely and confidently remove regulatory controls on  
23 the supply and price of these functions.

24 **Q. ARE THERE OTHER POLICIES THAT THE COMMISSION SHOULD**  
25 **EMBRACE TO OPEN THE ELECTRICITY MARKET IN PENNSYLVANIA TO**  
26 **COMPETITION?**

1 A. Yes. One of the major issues confronting the Commission in the quest to open  
2 electricity markets to competition arises due to the prospect for so called "stranded  
3 costs." These are costs that are presumed to arise as a direct consequence of the  
4 introduction of competition into a formerly monopolistic industry. Several questions  
5 are, of course, raised by claims that the incumbent firm will suffer stranded costs.  
6 Will such stranded costs, in fact, arise? To the extent that they do arise, should the  
7 incumbent firm be provided compensation for these costs? And, if the Commission  
8 decides that some amount of compensation to the traditional utility provider is to be  
9 forthcoming, how should the compensation be structured? That is, from whom should  
10 the payment for such stranded costs be extracted?

11 While these and other questions will certainly continue to arise and be debated,  
12 it is important at this early stage of opening electricity markets to competition for the  
13 Commission to not lose sight of the basic premise of those who champion the  
14 collection of such stranded costs. Specifically, the presumption is that such costs arise  
15 from the emergence of competition. Testifying on behalf of PP&L, Mr. Schadt has  
16 defined stranded costs consistent with the Act's definition which provides: "An electric  
17 utility's known and measurable net electric generation-related costs, determined on a  
18 net present value basis over the life of the asset or liability as part of its restructuring  
19 plan, which traditionally would be recoverable under a regulated environment but  
20 which may not be *recoverable in a competitive electric generation market* and which  
21 the commission determines will remain following mitigation by the electric utility."

1 (emphasis added)<sup>14</sup> Similarly, the 1996 Economic Report of the President defined  
2 stranded costs as “[T]hose unamortized costs of prior investments that are scheduled  
3 for recovery through regulated monopoly rates but would not be recovered *under*  
4 *competition*. (p. 186) (emphasis added) Clearly, it is “the advent of competition” that  
5 is seen as the catalyst of the creation of stranded costs. Thus, independent of the  
6 resolution of essentially any other issue surrounding stranded costs, the Commission  
7 must condition the recovery of any stranded costs on an affirmative showing by the  
8 incumbent provider that it has, indeed, opened its markets fully to competitive supply.  
9 That is, if stranded costs arise because of competition then the recovery of any such  
10 costs must be forthcoming only if it can be clearly demonstrated that the competition  
11 that gives rise to such costs has, indeed, arisen.

12 **Q. ARE THERE SPECIFIC BENEFITS THAT ARISE BY CONDITIONING THE**  
13 **RECOVERY OF ANY STRANDED COSTS UPON A DEMONSTRATION**  
14 **THAT INCUMBENT UTILITIES HAVE FULLY OPENED THEIR MARKETS**  
15 **TO COMPETITION?**

16 A. Yes. By declaring now that the Commission will not permit the recovery of any  
17 stranded cost in the absence of a demonstration by the incumbent that commercially  
18 viable and significant competition has arisen, a considerable financial incentive is  
19 created for PP&L to, in fact, open its markets to competition. This financial incentive  
20 is very important because of the countervailing and innate incentive on the part of the  
21 incumbent monopoly provider to resist relinquishing its monopoly power.

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<sup>14</sup> Direct Testimony of Joseph R. Schadt before the Pennsylvania Public Utility Commission, PP&L Statement No. 8, p.3. 66 Pa.C.S. §2803.

1 Q. ARE THERE OTHER STEPS THAT THE COMMISSION CAN TAKE TO  
2 PROMOTE THE EMERGENCE OF COMPETITION IN THE PROVISION OF  
3 ELECTRICITY IN PENNSYLVANIA?

4 A. Yes. Given the present monopoly-laden position of PP&L in the provision of  
5 electricity and its participation in all vertical stages of electricity supply, the  
6 Commission should initiate proceedings to determine whether opening retail-stage sales  
7 to competition is adequate to ensure competitive provision.<sup>15</sup> Accurate knowledge of  
8 the status of competition – or the lack thereof – is critical because it provides  
9 important feedback to the Commission regarding additional affirmative steps that may  
10 be necessary to further open the market to competition. If under present policies  
11 effective competition has not emerged, then PP&L's stranded cost recovery should be  
12 suspended while additional steps are taken to permit alternative suppliers full access to  
13 competitively supply power to customers in the PP&L service territory. That is,  
14 should the Commission determine that insufficient amounts of competition have arisen  
15 it should presume that the reason is that public policy has simply not been vigorous  
16 enough in adopting policies that promote and protect competition and must redouble its  
17 efforts toward that end prior to allowing full recovery of costs otherwise determined to  
18 be stranded.

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<sup>15</sup> In this regard, it is worth pointing out that the Competition Act explicitly notes that it is in the public interest to permit retail customers access “to a competitive generation market.” [Section 2802(3)] This indicates that the Commission should act in whatever ways it can to ensure that consumers do, indeed, have access to *competitive* supply from the generation stage.

1           The importance of this recommendation stems in part from the Competition  
2 Act's requirement that at the end of the transition period the generation-stage of  
3 electricity will be deregulated.<sup>16</sup> Clearly, deregulation prior to the emergence of  
4 effective competition would leave consumers vulnerable to the pernicious consequences  
5 of significant monopoly power and would be antithetical to the public interest.  
6 Additionally, because the presence of properly defined stranded costs is conditional  
7 upon the presence of competition, it is absolutely critical that the Commission ensure  
8 that conditions of effective competition are, indeed, present as a precondition to the  
9 recovery of any so-called stranded costs.

10 **Q. IS IT IMPORTANT THAT CONSUMERS BE GIVEN THE MAXIMUM**  
11 **OPPORTUNITY TO CHANGE THEIR RETAIL PROVIDER OF**  
12 **ELECTRICITY?**

13 A. Yes. Consistent with the dictates of the Competition Act, consumers must be  
14 permitted every possible opportunity to switch to alternative providers of electricity.  
15 Alternative providers must be free to solicit retail customers and to receive the  
16 cooperation of PP&L in making the transition as seamless as possible. Moreover,  
17 given the success of the presubscription process in telecommunications in accelerating  
18 the advent of effective competition, the Commission may wish to consider a similar  
19 mechanism at some point in the transition to competition in the electric utility industry.  
20 Specifically, because presubscription assures that customers are explicitly given a  
21 choice regarding their supplier, it provides a fresh opportunity for all competitors to  
22 vie for the patronage of electricity customers.

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<sup>16</sup> Section 2806 (A).

1 Q. WHAT POLICIES DO YOU BELIEVE ARE NECESSARY TO PROTECT  
2 COMPETITION?

3 A. As I noted earlier, the process of introducing competition into the provision of  
4 electricity in Pennsylvania faces a challenge because, for the foreseeable future, one of  
5 the vertical stages of production (namely, wire-services distribution functions) will be  
6 provided under conditions of significant monopoly power. This challenge is made  
7 more daunting because the incumbent provider of the monopoly functions is  
8 envisioned to participate in the other, potentially competitive, stages of electricity  
9 supply. Because of the incentives for monopoly leveraging in these circumstances, it  
10 is necessary for the Commission to design and implement a variety of safeguards to  
11 protect and maintain the integrity of the competitive process. Specifically, I  
12 recommend that the Commission policy:

- 13 (1) mandate the separation of monopoly from potentially competitive  
14 functions of PP&L to the maximum extent feasible, consistent with  
15 efficient and reliable provision of power and the dictates of the  
16 Competition Act;
- 17 (2) require complete and unconditional provision of necessary access by all  
18 competitors to remaining monopoly assets of the electric supply system  
19 in Pennsylvania;
- 20 (3) explicitly prohibit bundling of monopoly services or functions with  
21 potentially competitive services or functions;
- 22 (4) establish procedures to prevent anticompetitive price discrimination and  
23 cross-subsidization;

- 1 (5) establish economically sound guideposts for the measurement of costs so  
2 that "cost shifting" does not become a vehicle through which cross-  
3 subsidization may be carried out;
- 4 (6) establish procedures that aggressively seek to eliminate opportunities for  
5 nonprice discrimination by the incumbent provider; and
- 6 (7) condition initial and continued stranded cost recovery for PP&L on the  
7 progress in achieving these goals and on the actual opening of PP&L's  
8 retail market to competition.

9 V. CONCLUSION

10 Q. **GIVEN THE DEARTH OF COMPETITION IN ELECTRICITY MARKETS**  
11 **SHOULDN'T THE COMMISSION PROCEED CAUTIOUSLY IN ITS**  
12 **IMPLEMENTATION OF COMPETITION IN PENNSYLVANIA'S RETAIL**  
13 **ELECTRICITY MARKET?**

14 A. While the Commission should proceed judiciously, it should not delay even in the  
15 slightest in opening retail-stage electricity to competition. Specifically, it is vital to  
16 implement the full set of Competition-Enabling Policies to promote and protect  
17 competition as soon as feasible in Pennsylvania. Experience has shown that the  
18 introduction of competition, when complemented by the appropriate competition-  
19 enabling policies, is likely to yield considerable economic benefits for consumers.

20 Q. **DOES THIS CONCLUDE YOUR TESTIMONY?**

21 A. Yes.

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July 2, 1997

6

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7

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#### **CONGRESSIONAL AND REGULATORY TESTIMONIES:**

U.S. Senate (Energy and Natural Resources Committee, Subcommittee on Water and Power; Commerce, Science and Transportation Committee); Tennessee State Legislature (Senate Finance, Ways and Means Committee; Special Joint Legislative Committee on Business Taxation; and, Senate State and Local Government Committee); Federal Communications Commission (Ex Parte presentation); Pennsylvania Public Utility Commission; Michigan Public Service Commission; West Virginia Public Utility Commission; Wyoming Public Utility Commission; Washington Utilities and Transportation Commission; Utah Public Service Commission; Wisconsin Public Service Commission; California Public Utilities Commission; Florida Public Service Commission; Delaware Public Service Commission; Montana Public Service Commission; Maryland Public Service Commission; Massachusetts Department of Public Utilities; Georgia Public Service Commission; Colorado Public Utilities Commission; North Carolina Public Utilities Commission; Texas Public Utility Commission; Arkansas Public Service Commission; Connecticut Department of Public Utility Control; and New Jersey Board of Public Utility Commissioners.

#### **SELECTED CONFERENCE PRESENTATIONS:**

University of Minnesota, Annual Meeting of the Minnesota Economics Association, Minneapolis  
Presentation: "Policies for the Evolving Telecommunications Industry," September 1996.

University of Florida, Annual Public Utility Research Center Conference, Gainesville, Florida  
Presentation: "Universal Service in Competitive Telecommunications Markets," January

July 2, 1997

8

1996.

University of Michigan, "Telecommunications Infrastructure and the Information Economy: Interactions Between Public Policy and Corporate Strategy," Ann Arbor, Michigan

Presentation "Regulatory Policies Toward Local Exchange Companies Under Emerging Competition: Guardrails or Speedbumps on the Information Highway" (with David L. Kaserman), March 1995.

Rutgers University "Advanced Workshop in Regulation and Public Utility Economics" (Thirteenth Annual Conference, Newport, Rhode Island)

Presentation: "Dominant Firm Pricing with Competitive Entry and Regulation" (with Larry R. Blank and David L. Kaserman), May 1994.

Twenty-first Annual Telecommunications Policy Research Conference, Solomons, Maryland

Presentation: "Open Entry and Local Telephone Rates: The Economics of IntraLATA Toll Competition," October 1993.

Vanderbilt University (Owen School of Management) Telecommunications Systems Modelling and Analysis Conference

Presentation: "Open Entry and Local Telephone Rates: The Economics of IntraLATA Toll Competition," March 1993.

Twentieth Annual Telecommunications Policy Research Conference, Solomons, Maryland

Presentation: "Demand and Pricing of Telecommunications Services: Evidence and Welfare Implications," September 1992.

Ohio State University (National Regulatory Research Institute) "Telecommunication Demand Conference"

Presentation: "The Economic Welfare Effects of Extended Area Telephone Service," August 1992.

University of Utah "Conference on New Directions for State Telecommunications Regulation"

Presentation: "Competition for Local Exchange Service--Is Nothing Sacred?" February 1991.

Rutgers University "Advanced Workshop in Regulation and Public Utility Economics" (Ninth Annual Conference, New Paltz, New York)

Paper presented: "Demand, Pricing and Regulation of Cable TV Services: Evidence From the Pre-Deregulation Period" (with Yasuji Otsuka), June 1990.

University of Kansas "Stakeholders' Symposium on Telecommunications"

Presentation: "The Modern History of Telecommunications Economics and Policy," Semi-

July 2, 1997

9

annual February 1990-present.

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Southwestern Bell Corporation "Annual Regulatory Conference" (St. Louis, Missouri)

Presentation: "The New Regulatory Age - What Lies Ahead" April 1989.

University of Florida (Public Utility Research Center) Conference on "Beyond Traditional Regulation"

Presentation: "Expectations and Realizations in Post-Divestiture Telecommunications Policy," February 1989.

National Conference of State Legislatures and the U.S. Advisory Commission on Intergovernmental Relations "Conference on Telecommunications Policy" (Washington, D.C.)

Presentation: "Telecommunications Policy -- Past, Present and Future," November 1988.

University of Paris (Dauphine IX), Paris, France, EURO-TIMS, "Joint International Conference"

Presentation: "The Quantification of Entrepreneurship: The Determinants of Firm Entry, Exit, and Survival," July 1988.

University of Texas conference on "Current Issues in Telecommunications Regulation"

Papers Presented: "Deregulation and Market Power Criteria: An Evaluation of State Level Telecommunications Policy" (with David L. Kaserman), and "The Role of Cost Allocation Methodologies in the Deregulation of Long Distance Telecommunications," October 1987.

Rutgers University conference on "Interexchange Telecommunications and Regulatory Innovation"

Paper presented: "Long Distance Telecommunications Policy: Rationality on Hold" (with David L. Kaserman), October 1987.

University of Florida symposium on "Public Policy Toward Corporations"

Paper presented: "The Economics of Regulation: Theory and Evidence in the Post-Divestiture Telecommunications Industry" (with David L. Kaserman), March 1986.

#### **CONSULTING:**

U.S. Federal Trade Commission; Tennessee Valley Authority; AT&T; Sprint; MCI; Enron;

July 2, 1997

10

Antitrust Division, Office of the Attorney General, State of Tennessee; U.S. Senator Howard Baker, Jr., U.S. Senate Majority Leader; Oak Ridge National Energy Laboratory; Arkansas Consumer Research; Division of Energy Conservation and Rate Advocacy, Office of the Arkansas Attorney General; U.S. Department of Energy

#### **PROFESSIONAL PRESENTATIONS:**

"Regulation and Investment: Evidence from the Electric Utility Industry." (with Thomas Lyon) Presented to the American Economic Association annual meetings, New Orleans, January 1997.

"Targeted and Untargeted Subsidy Schemes: Evidence from Post-Divestiture Efforts to Promote Universal Telephone Service." Presented to the Southern Economic Association Annual Meetings, New Orleans, November 1995.

"Dominant Firm Pricing with Competitive Entry and Regulation: The Case of IntraLATA Toll," with Larry Blank and David L. Kaserman. Presented to the Southern Economic Association Annual Meetings, Orlando, Florida, November 1994.

"The Economic Welfare Effects of Extended Area Telephone Service," with Carlos Martins-Filho. Presented to the Western Economic Association Annual Meetings, Seattle, Washington, July 1991.

"Demand, Pricing and Regulation of Cable TV Services: Evidence from the Pre-Deregulation Period," with Yasuji Otsuka. Presented to the Southern Economic Association annual meetings, New Orleans, Louisiana, November 1990.

"Market Contestability: Toward an Operational Index," with David L. Kaserman. Presented to the Western Economic Association annual meetings, Lake Tahoe, Nevada, June 1989.

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"Barriers to Trade and the Import Vulnerability of U.S. Manufacturing Industries," with Don Clark and David L. Kaserman. Presented to the Southern Economic Association annual meetings, San Antonio, Texas, November 1988.

"Cross-Subsidization in Telecommunications: Economic Theory Versus Regulatory Rhetoric" with David L. Kaserman, Western Economic Association annual meetings, Vancouver, British Columbia, July 1987. Also presented at the Southern Economic Association annual meetings, Washington, D.C., November 1987.

July 2, 1997

11

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"The Measurement of Vertical Economies and the Efficient Structure of the Electric Utility Industry" with David L. Kaserman, American Economic Association annual meetings, San Francisco, California, December 1983.

"Regulation, Advertising and Economic Welfare" (with David L. Kaserman), Southern Economic Association annual meetings, Washington, D.C., November 1983.

"Multiproduct Monopoly, Regulation and Firm Costs," Southern Economic Association meetings, Atlanta, Georgia, November 1982.

"Forecasting Economic Activity in Tennessee with a Quarterly Econometric Model," Southeastern Economic Analysis Conference, Charlotte, North Carolina, September 1982.

"The Technological Determinants of U.S. Energy Industry Structure." Regulatory Workshop, Center for the Study of American Business and the Department of Economics, Washington University, December 1981.

#### **WORK IN PROGRESS:**

"Regulation, Vertical Integration and Sabotage," (with T.R. Beard and D.L. Kaserman), January 1997.

"Regulation and Investment: Evidence from the Electric Utility Industry," (with Thomas P. Lyon), March 1996.

"Regulatory Policies Toward Local Exchange Companies Under Emerging Competition: Guardrails or Speedbumps on the Information Highway," (with David L. Kaserman), revised June 1996.

"Targeted and Untargeted Subsidy Schemes: Evidence from Post-Divestiture Efforts to Promote Universal Telephone Service," (with Ross Eriksson and David L. Kaserman), revised November

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12

1996.

"Modeling Entry and Barriers to Entry: A Test of Alternative Specifications," (with Mark L. Burton and David L. Kaserman), mimeograph, revised, August 1995.

"Open Entry and Local Telephone Rates: The Economics of IntraLATA Toll Competition (with David L. Kaserman, Larry R. Blank, and Simran Kahai), November 1996.

"Efficient Industry Structure and the Scope of Banking-Nonbanking Activities" (with Atul Saxena and Harold Black), January 1993.

"An Asymptotically Efficient Estimator for Point-to-Point Demand Models with Adjacent Cross-Sectional Correlation" (with Carlos Martins-Filho), August 1993.

"Dominant Firm Pricing with Competitive Entry and Regulation: The Case of IntraLATA Toll" (with David L. Kaserman and Larry R. Blank), May 1994.

#### **EDITORIAL REVIEWER:**

National Science Foundation, The MIT Press, Federal Trade Commission, The Economic Journal, Journal of Business, RAND Journal of Economics, Journal of Regulatory Economics, Review of Economics and Statistics, Economic Inquiry, Journal of Industrial Economics, Review of Industrial Organization, Scandinavian Journal of Economics, Eastern Economic Journal, Southern Economic Journal, Contemporary Economic Policy, Industrial Relations, Growth and Change, Review of Regional Studies, Journal of Economics and Business, Quarterly Review of Economics and Business, Journal of Policy Analysis and Management, Quarterly Journal of Business and Economics, Regional Science and Urban Economics, Financial Review, Journal of Money, Credit, and Banking, Social Science Quarterly, Telecommunications Systems, Public Finance Quarterly

#### **PROFESSIONAL MEMBERSHIPS AND COMMITTEES:**

American Economic Association

Western Economic Association

Southern Economic Association

American Law and Economics Association

National Regulatory Research Institute, 1993-1997, Ohio State University, Research Advisory Committee

Enron St. 2.1

R-973954

Hbg JK  
8/18/97

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY  
COMMISSION

SURREBUTTAL TESTIMONY OF

KJR

DR. JOHN W. MAYO

ON BEHALF OF

ENRON POWER MARKETING INC.

PA.P.U.C.  
PROTHONOTARY'S OFFICE

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DOCKET NO. R-00973954  
RE: PP&L RESTRUCTURING PLAN

AUGUST 15, 1997

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JOURNAL

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1  
2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.  
3 A. My name is John W. Mayo. My business address is Georgetown  
4 University, School of Business 37th and O Streets, N.W., Washington,  
5 D.C. 20057.  
6 Q. ARE YOU THE SAME JOHN W. MAYO THAT PROVIDED  
7 DIRECT TESTIMONY IN THIS CASE?  
8  
9 A. Yes at Enron St. 2.  
10  
11 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?  
12  
13 A. The Commonwealth of Pennsylvania has embarked on an ambitious and  
14 important course aimed at bringing effective competition to retail markets  
15 for electricity. Quite expectedly, the different constituencies have  
16 differing ideas as to how this goal can and should be accomplished.  
17 Throughout the coming months, a myriad of details must be debated,  
18 negotiated and decided. If the overall process of developing retail-level  
19 competition is to be successful, however, it is essential that the basic  
20 regulatory platform from which this effort is launched be grounded in  
21 sound economic principles. My purpose, then, in both this and my  
22 earlier testimony, is to assist the Commission in the process of  
23 identifying and applying these economic principles.

1           In this capacity, the focus of my present testimony centers on the  
2           comments of Professor Kalt, Professor Kahn, Mr. Genseczko, and Mr.  
3           Krall who provided rebuttal testimony on behalf of PP&L.

4           **Q. ARE THERE POINTS OF AGREEMENT BETWEEN YOUR**  
5           **TESTIMONY AND THOSE OF PROFESSORS KALT AND KAHN?**

6  
7           A. Yes. My reading of their testimonies indicates that we agree on several  
8           Fundamental points. For example, I believe that we agree that:

- 9                   1) there are substantial benefits of competition relative to  
10                   regulated monopoly;  
11  
12                   2) there is a need to design policies that both promote and  
13                   protect competition;  
14  
15                   3) industry restructuring carries with it a number of risks of  
16                   anticompetitive conduct; and  
17  
18                   4) the incumbent has incentives to act upon its monopoly  
19                   power base to maintain its monopoly position.  
20

21           **Q. HAVING AGREED ON THESE FUNDAMENTAL PRINCIPLES,**  
22           **WHAT POINTS OF DISAGREEMENTS EXIST, IF ANY?**

23  
24           A. Our principle difference is in our vision of the policy steps that are  
25           necessary to carry out a policy of promoting and protecting competition  
26           In my direct testimony, I provided an economic principles-based  
27           discussion of the need for a policy approach, which I refer to as  
28           "Competitive-Enabling." Under such a policy approach, the Commission  
29           would vigorously pursue the opening of electricity markets to

1 competition while at the same time maintaining sufficient regulatory  
2 safeguards to protect the competitive process in an industry that will, for  
3 the foreseeable future, continue to have significant monopoly elements.

4 In contrast, Professor Kalt argues that policy approaches such as  
5 Enron's that are inconsistent with the proposal of PP&L go beyond the  
6 steps necessary to ensure consumer benefits and are, therefore,  
7 inconsistent with a policy of promoting and protecting competition. To  
8 provide support for his defense of PP&L's policy approach and to  
9 discredit the policy framework I proffered, Professor Kalt provides a  
10 gross simplification and distorted image of the policies as I have  
11 advocated, portraying them as an attempt to overtly support or subsidize  
12 rivals. In so doing, Professor Kalt aptly and compellingly critiques a  
13 policy approach that I do not favor and which is not a feature of a  
14 Competition-Enabling Approach to the restructuring of PP&L.  
15 Similarly, Professor Kahn convincingly critiques the idea of providing  
16 infant industry protections to new entrants into this market. As with  
17 Professor Kalt, Professor Kahn's admonitions about subsidizing entrants  
18 are well taken, but off-point.

19 Specifically, and to be absolutely clear on this point: I do not  
20 favor a corporate industrial policy of subsidizing or supporting new

1 entrants into the electricity industry. Competitors must be made to  
2 compete on their efficiency merits. But having stated this point of  
3 fundamental agreement, one simply cannot dismiss policy efforts to fully  
4 enable the competitive process as a desire to subsidize new entrants.  
5 Indeed, I continue to assert that the Commission should thoroughly  
6 scrutinize the PP&L proposal to see if it maximally opens the market to  
7 the forces of competition consistent with the Electricity Generation  
8 Customer Choice and Competition Act. Moreover, given the (I believe  
9 agreed upon) acknowledgment that continued monopoly control over key  
10 elements of the supply process may allow PP&L, if not restrained, to  
11 displace rivals due not to its efficiency but rather because of its  
12 incumbent monopoly power, it would hardly seem a "subsidization" or  
13 overly protective of new entrants to call for restrictions on PP&L's  
14 ability to compete through policies that emanate from its monopoly  
15 power.

16 While Professor Kalt's criticisms of a policy approach that I do  
17 not recommend can be readily dismissed, his testimony reveals another  
18 important set of issues that receive far less attention from Professor Kalt  
19 and which I believe the Commission must consider as it weighs the  
20 merits of PP&L's proposed restructuring plan. Specifically, is the policy

1 approach defended by Professor Kalt overly protectionist of the  
2 incumbent firm's monopoly position in retail markets? And, does it  
3 embody undue risks of anticompetitive conduct that could be avoided by  
4 the development of a stringent set of regulatory safeguards designed to  
5 protect the competitive process? Consider, for example, PP&L's  
6 proposal to retain its monopoly status as the sole agent for retail  
7 customers to arrange service. Is such a policy of insulating PP&L from  
8 competition a necessary part of a sound policy to promote and protect  
9 competition? I believe not. Rather, sound economic principles and the  
10 history of regulatory policy clearly indicates that all such protectionist  
11 characteristics of the PP&L restructuring proposal must be rooted out if  
12 the consumers of Pennsylvania are to receive the full benefits of  
13 competition to which they are entitled under the Electricity Generation  
14 Customer Choice and Competition Act.

15 **Q. PROFESSOR KALT SUGGESTS THAT YOU FAIL TO**  
16 **DISTINGUISH POLICIES THAT PROTECT COMPETITORS**  
17 **FROM A POLICY EFFORT TO PROMOTE COMPETITION.**  
18 **PROFESSOR KAHN MAKES A SIMILAR ARGUMENT IN THE**  
19 **CONTEXT OF A DISCUSSION OF INFANT INDUSTRY**  
20 **PROTECTIONS. CAN YOU COMMENT?**

21  
22 A. Yes. Professor Kalt is quite correct in his admonition that the goal of  
23 public policy should be the protection of the competitive process rather

1 than the protection of individual competitors. This is an old and well-  
2 recognized guidepost to sound competitive policy. Similarly, Professor  
3 Kahn provides an analogous account of the risks that are inherent in  
4 providing infant industry protections to new competitors into an industry.  
5 These risks to policy making are also well known. Nothing in the policy  
6 approach I have proffered, however, provides any support for either  
7 providing regulatory protections to individual competitors (as apart from  
8 protecting the competitive process) or infant industry protections in the  
9 market through a policy of providing explicit or implicit subsidies to any  
10 competitor. It is, therefore, an inappropriate criticism of my testimony  
11 to characterize it in this fashion. A more fundamental concern,  
12 however, is not simply that the Commission could be misled regarding  
13 my testimony, but that the testimony of PP&L's witnesses creates a mind  
14 set that essentially any pro-competitive regulatory safeguards are overly  
15 protectionist of new entrants.

16  
17 **Q. ARE THERE INSTANCES WHERE LEGITIMATE POLICIES**  
18 **DESIGNED TO PROTECT THE COMPETITIVE PROCESS ARE**  
19 **CATEGORIZED AS PROTECTING "COMPETITORS" WHEN, IN**  
20 **FACT, THEY ARE DESIGNED TO PROTECT THE**  
21 **COMPETITIVE PROCESS?**  
22

1 A. Yes. On pp. 43-47 of his testimony, Professor Kahn discusses what he  
2 perceives as regulators' inherent tendency toward designing rules to  
3 protect individual competitors. As an example of this tendency,  
4 Professor Kahn points toward the Modification of Final Judgment  
5 restrictions that were imposed on the Bell operating companies at the  
6 time of the divestiture which restricted their ability to participate in the  
7 interLATA telecommunications market. He argues that "such flat  
8 prohibitions, seeking as they do to protect competition by protecting one  
9 party ... are inherently anticompetitive." The fact of the matter, though,  
10 is that the MFJ restrictions were not "flat prohibitions" but rather were a  
11 logical public policy filter that conditioned a Bell operating company's  
12 re-entry into the interexchange marketplace upon a showing that "there is  
13 no substantial possibility that it could use its monopoly power to impede  
14 competition in the market it seeks to enter."<sup>1</sup> That is, re-entry was  
15 conditioned upon a showing that Bell Company re-entry would not harm  
16 competition. Such a policy is not designed to protect any individual

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<sup>1</sup> Section VIII(C), Modification of Final Judgment, Civil Action 82-0192, United States of America v. Western Electric Company, Incorporated and American Telephone and Telegraph Company.

1 competitor, but rather the competitive process. The lesson here is that,  
2 while the Commission should be alert to avoiding policies designed to  
3 subsidize new entrants, it should similarly not become weak-kneed in its  
4 application of sound public policy safeguards that may be mistakenly  
5 characterized as "inherently anticompetitive." Public policy safeguards that  
6 are designed to curb the maintenance or exploitation of monopoly power will,  
7 if properly applied, fall only on firms with significant monopoly power. The  
8 fact that such regulatory restrictions fall only on firms with monopoly power  
9 does not indicate that they are designed to protect or subsidize new entrants or  
10 protect specific competitors, but rather constitute a policy of enabling  
11 competition by protecting the competitive process from the unique ability of a  
12 firm with monopoly power to harm that process.

13 **Q. PROFESSOR KALT SUGGESTS THAT A POLICY OF TENACIOUSLY**  
14 **ELIMINATING BARRIERS TO ENTRY IS FLAWED BECAUSE IT IS**  
15 **NOT LIKELY TO ELIMINATE THE PROBLEMS OF NATURAL**  
16 **MONOPOLY THAT ARISE FROM THE COST STRUCTURES OF**  
17 **TRANSMISSION AND DISTRIBUTION. DO YOU AGREE?**

18  
19 A. In a small way, I am sympathetic to Professor Kalt's argument. A policy of  
20 vigorously seeking to eliminate regulatory barriers to entry may not eradicate  
21 the difficulties of entry posed by natural monopoly. That is, even if regulatory  
22 barriers to entry are maximally reduced entry may still prove difficult. This  
23 reality, however, cannot provide a justification for retreating from the policy  
24 prescription, for two fundamental reasons. First, as Professor Kalt and I agree,

1 the benefits of competition, where competition has been successfully  
2 introduced, are great. This clearly indicates the need to take an aggressive  
3 posture toward eliminating barriers to entry. Second, the extent of natural  
4 monopoly conditions in this industry is not well defined. That is, there may  
5 be areas of industry supply that are potentially subject to competitive supply  
6 but, that have historically been thought to be part of the "natural monopoly"  
7 elements of supply in this industry. For example, it would seem quite  
8 plausible that, while the wireline functions of the distribution process remain  
9 naturally monopolistic, the non-wireline, revenue-cycle functions, or electricity  
10 supply are not naturally monopolistic. In this instance, the Commission should  
11 move vigorously to maximally open the electricity supply process, including  
12 the revenue-cycle functions, to competition.

13 **Q. WHAT POLICY CONSEQUENCES STEM FROM THIS DIFFERENCE**  
14 **OF OPINION?**  
15

16 A. A very natural tendency on the part of an incumbent is to seek to protect the  
17 monopoly status of these activities behind the cloak of "natural monopoly." If  
18 adopted, however, such policy proposals are detrimental to consumers and to  
19 economic welfare. For example, nothing from either economic theory or  
20 empirical analysis of this industry suggests that the non-wireline activities of  
21 electricity supply are subject to natural monopoly supply conditions.  
22 Therefore, Professor Kalt's support of efforts to insulate these activities from

1 competition, here buttressed by the "natural monopoly" argument, is best seen  
2 as an effort to protect a monopoly base from competition. It is squarely  
3 inconsistent with a policy of enabling competition. Moreover, in contrast to  
4 the conclusion Professor Kalt would have the Commission draw, no aspect of  
5 opening such functions to competition can properly be labeled a policy of  
6 subsidizing new entrants.

7 **Q. TO BE CLEAR, ARE, YOU SAYING THAT PROFESSOR KALT**  
8 **ENDORSES THE NOTION OF MAINTAINING MONOPOLY**  
9 **SUPPLY OF REVENUE CYCLE FUNCTIONS?**  
10

11 **A.** Yes. On p. 25, Professor Kalt notes (without criticism) PP&L's decision  
12 "to continue to offer revenue cycle services on a regulated, monopoly  
13 basis." As support for this proposition, and directly contrary to the  
14 policy advice elsewhere in his testimony to "remove legal or regulatory  
15 impediments to the entry of new firms," Professor Kalt notes PP&L's  
16 statutory responsibility to handle "connection and disconnection of  
17 service, assurance of the quality of residential service, termination of  
18 service, and the like." While I am not a lawyer and cannot speak to the  
19 legal obligation of PP&L to provide these activities, I will note that  
20 similar arguments were raised by the pre-divestiture Bell System to  
21 defend the maintenance of the monopoly provision of telecommunications

1 supply.<sup>2</sup> It is now widely regarded by the economics community that  
2 such arguments as "we must maintain monopoly to assure the quality of  
3 service" are generally self-serving attempts to preserve monopoly and are  
4 antithetical to the public interest.<sup>3</sup>

5 **Q. PROFESSOR KALT SUGGESTS (p. 23) THAT YOUR**  
6 **ADVOCACY OF A SET OF REGULATORY RULES TO**  
7 **PROTECT COMPETITION IS INCONSISTENT WITH YOUR**  
8 **ANALYSIS THAT A "RYKES-BASED" APPROACH IS LIKELY**  
9 **TO FAIL CAN YOU COMMENT?**

10  
11 A. Yes. Professor Kalt is correct in observing that I am critical of a policy  
12 approach that *exclusively* relies upon regulatory rules to protect  
13 consumers. My advocacy of a set of regulatory safeguards is, however,  
14 not inconsistent with such an observation. A careful reading of my  
15 direct testimony reveals that a Competition-Enabling approach indicates  
16 that the Commission should engage in both policies to protect  
17 competition *and* to promote competition.

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<sup>2</sup> Hush-A-Phone Corporation v. FCC, 238 F2d 266 (D.C. Cir. 1956);  
Thomas F. Carter and Carter Electronics Corporation v. AT&T, 365  
F2d 486 (5th Cir. 1966).

<sup>3</sup> This, of course, does not mean that standards of quality and safety need not be maintained. They do. It is, however, not necessary to maintain monopoly supply to assure such standards.

1 Q. PROFESSOR KALT ARGUES (P. 36) THAT A SET OF RULES TO  
2 PROTECT THE COMPETITIVE PROCESS THAT GOES  
3 BEYOND PP&L'S PROPOSED CODE OF CONDUCT IS  
4 TANTAMOUNT TO "CONVICTION AND PUNISHMENT  
5 (HANDICAPPING) BEFORE THE FACT OF A TRANSGRESSION.  
6 DO YOU AGREE?  
7

8 A. No. Indeed, Professor Kalt's own analogy in this respect is useful.

9 Specifically, he argues that while we all have a financial incentive to rob  
10 banks, "the essence of a civil society includes the recognition of mutual  
11 forbearance, and our local and moral traditions do not generally support  
12 conviction and punishment (handicapping) before the fact of a  
13 transgression." While I think we can all agree that moral fortitude and  
14 participation in a civil society may compel many to not attempt bank  
15 robbery, it has not been sufficient to rely upon moral Codes of Conduct  
16 (e.g., the 'Ten Commandments') to prevent bank robberies. A set of  
17 well conceived and targeted rules to protect the competitive process are  
18 certainly no more a process of *ex ante* "conviction and punishment" of  
19 PP&L than are the set of actions taken by banks (e.g., the deployment of  
20 electronic surveillance equipment) and by society (i.e., the passage of  
21 anti-crime legislation) to deter bank robberies. In sum, the "essence of a  
22 civil society" notwithstanding, the economic structure of PP&L following  
23 the restructuring (to the extent that it remains the combination of

1 regulated monopoly and potentially competitive activities) very clearly  
2 points toward the incentive and ability of the firm to maintain and defend  
3 its monopoly power to the detriment of competitive process and  
4 consumers. Rules to deter action on those incentives are not conviction  
5 before the fact, but rather are part of a well-conceived policy process of  
6 enabling competition.

7 **Q. BUT MR. GENECZKO ARGUES THAT DESPITE ANY PROFIT**  
8 **INCENTIVE TO ENGAGE IN PRACTICES THAT MAINTAIN ITS**  
9 **MONOPOLY, PP&L WILL BEHAVE RESPONSIBLY AND AS A**  
10 **GOOD CORPORATE CITIZEN. CAN YOU COMMENT?**

11  
12 A. Yes. Nothing in my direct testimony or my testimony here should be  
13 taken to infer that PP&L or its employees are anything other than  
14 upstanding corporate citizens. I have absolutely no basis for questioning  
15 Mr. Geneczko's statements regarding the commitment of PP&L to  
16 behave in a manner that it sees as consistent with good corporate  
17 responsibility. Having stated this, however, does not mean that I agree  
18 with Mr. Geneczko that a policy approach which relies solely upon a  
19 code-of conduct, rules-based approach to PP&L's restructuring is  
20 sufficient to capture all of the benefits that competition promises. That  
21 is, while I have no grounds for questioning the good intentions of PP&L,  
22 the real issue is whether the planned corporate restructuring and

1 proposed code of conduct of PP&L is the best model for capturing all of  
2 the benefits of competition that are possible under the Electricity  
3 Generation Customer Choice and Competition Act. In this regard, I  
4 believe that the proposal by PP&L falls short of achieving its potential  
5 and can be improved.

6 **Q. CAN YOU PROVIDE AN EXAMPLE OF HOW THE PP&L**  
7 **PROPOSAL FALLS SHORT OF CAPTURING THE FULL**  
8 **PROMISE OF OPENING RETAIL MARKETS TO**  
9 **COMPETITION?**

10  
11 A. Yes. In his rebuttal testimony (p. 7), Mr. Geneczko takes exception to  
12 the idea that new competitors should be able to contact consumers  
13 directly and act on their behalf to secure and satisfy customer electricity  
14 needs. Instead, he argues that because "new customer hookup is executed  
15 through a process that requires dialogue" efficient supply of the activities  
16 involving such customer service is not likely to be accomplished in an  
17 effective manner through a "third party." Rather, Mr. Geneczko sees  
18 PP&L as the *only* competent provider, and that any third parties simply  
19 introduce "inefficiency and cost into the regulated business." But even a  
20 moment's reflection reveals that this sort of defense of PP&L as the sole  
21 potential agent for retail customers is paternalistic and serves as pure  
22 self-interested protectionism of a monopoly base. Rather than accepting

1 Mr. Geneczko's and PP&L's restricted vision of the services that should  
2 be subject to monopoly supply, consumers in Pennsylvania would be  
3 much better served should the Commission open the electricity supply  
4 process as wide as possible to Competition.

5 **Q. PROFESSOR KALT SUGGESTS THAT THE LESSON TO BE**  
6 **LEARNED FROM EXAMINING THE DEREGULATION**  
7 **EXPERIENCE IN THE CABLE TV INDUSTRY IS**  
8 **"IRRELEVANT." CAN YOU COMMENT?**  
9

10 A. Yes. Not only is the lesson relevant, but Professor Kalt's account of the  
11 facts surrounding the cable TV deregulation experience (with which I  
12 agree) point out precisely how relevant the policy lesson is. Specifically,  
13 both Professor Kalt and I acknowledge that the cable TV industry was  
14 deregulated in the absence of a vigorous policy of eliminating regulatory  
15 barriers to entry.<sup>4</sup> The fact that consumers did not benefit as much as  
16 possible, and were arguably harmed considerably, in the wake of this  
17 "deregulation" experience is a strong testimonial to the merits of a policy  
18 that seeks to promote competition through maximally *removing*  
19 *regulatory barriers to entry.*

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<sup>4</sup> Professor Kalt errs when he states (p. 38, line 19 - p. 39, line 2) that my direct testimony implies "there was some kind of open-access competition policy implemented." Indeed, in my direct testimony (p. 23, lines 5-7), I clearly stated that in deregulating cable TV, "policymakers neglected to fully remove barriers to entry into the industry."

1 Q. PROFESSOR KALT SUGGESTS THAT YOUR DISCUSSION OF  
2 THE EXPERIENCE IN TELECOMMUNICATIONS IS INAPT  
3 BECAUSE "TELECOMMUNICATIONS IS MOVING TOWARD  
4 COMPETITION IN THE CONTEXT OF RULES-BASED  
5 PROTECTIONS AGAINST MONOPOLY ABUSES." DO YOU  
6 AGREE?  
7

8 A. No. it is inaccurate to say that the policymaking thrust in the  
9 telecommunication industry is simply built upon a rules-based approach.  
10 Indeed, a major component of the modern telecommunication policy is to  
11 maximally remove barriers to entry into the industry. Indeed, Section  
12 253 of the Telecommunications Act of 1996 invokes a national policy of  
13 eliminating barriers to entry. For the policy approach in electricity to  
14 succeed in bringing the maximum benefits to consumers, it must, as in  
15 telecommunication, be predicated on a policy of maximally exposing  
16 incumbents to competition. Moreover, the approach in  
17 telecommunications of fully opening markets to competition is  
18 complemented by a set of Commission designed rules, rather than a  
19 simple Code of Conduct designed by the incumbent.

20 Q. PROFESSOR KAHN PLACES CONSIDERABLE WEIGHT ON  
21 ANTITRUST AS A PRIMARY POLICY INSTRUMENT AS  
22 PENNSYLVANIA TRANSITIONS TO A MORE COMPETITIVE  
23 ELECTRICITY SUPPLY PROCESS. CAN YOU COMMENT?  
24

25 A. Yes. As Professor Kahn recognizes within his testimony, antitrust laws  
26 are intended to protect the competitive process. Similarly, a purpose of

1 regulatory safeguards is to protect the competitive process. Professor  
2 Kahn seems to imply by his testimony that regulatory safeguards are  
3 redundant and that the antitrust courts can take over this process of  
4 protecting competition in the electricity industry.

5 Antitrust laws are not, however, designed to oversee the transition  
6 from monopoly to competition in regulated markets. In this respect,  
7 antitrust laws and enforcement represent a fundamentally different set of  
8 policy tools than a well-designed Commission policy of actively  
9 promoting the emergence of competition wherever possible and  
10 protecting emergence of the competitive process with targeted regulatory  
11 safeguards. Antitrust laws, by their very nature, are designed to be  
12 applied in markets where competition is the norm and monopoly is an  
13 aberrant condition. Regulation is designed to be applied in situations  
14 where monopoly is the norm and competition the exception. In this  
15 regard, the structure of the electric utility industry structure has been  
16 monopoly for essentially its entire history. Moreover, both economic  
17 theory and experience in industries with monopoly at one vertical stage  
18 and prospective competition at other stages, indicate that absent structural  
19 separation, regulated firms will have an ongoing incentive to exploit their  
20 monopoly power in a variety of subtle ways and on an ongoing basis.

1 Given this situation, regulation has a distinct advantage relative to  
2 antitrust law as a vehicle for affecting the transition to a competitive  
3 marketplace. The transition will require active and ongoing oversight  
4 and the maintenance of regulatory safeguards. Antitrust courts are ill-  
5 equipped for this day-to-day interaction and supervision.<sup>5</sup> Accordingly,  
6 while antitrust enforcement should remain a part of the public policy  
7 process, it should not be the exclusive, or even primary, policy  
8 instrument as the Pennsylvania electricity markets make the transition to  
9 greater competition.

10 **Q. BOTH PROFESSOR KALT AND PROFESSOR KAHN SUGGEST**  
11 **THAT THE IMPOSITION OF PRICE CAP REGULATION WILL**  
12 **PREVENT PP&L FROM SHIFTING COSTS FROM ITS**  
13 **POTENTIALLY COMPETITIVE ACTIVITIES TO ITS**  
14 **MONOPOLY ACTIVITIES. DO YOU AGREE?**

15  
16 A. I do agree that one of the purported benefits of the imposition of price-  
17 cap regulation is that it attenuates the incentive of regulated firms to  
18 engage in a policy of strategically shifting costs. This general  
19 observation notwithstanding, however, it is my understanding that the  
20 restructuring proposal by PP&L proposes to base its initial prices for its

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<sup>5</sup> Another PP&L witness, Professor Kalt, acknowledges this point when, in the context of the application of antitrust to the telecommunications industry, he points out that a federal court "would have been incapable of administering a long-term program of regulatory oversight." (p. 40).

1 monopoly services based on its cost study performed by Mr. Kleha.  
2 Thus, there is a very clear incentive at the outset of the restructuring  
3 process for PP&L to engage in precisely the sort of cost-shifting that I  
4 described in my direct testimony.

5 **Q. MR. KRALL ARGUES (P. 27) THAT THERE IS NO LINKAGE**  
6 **BETWEEN THE LOAD SERVED BY THE INCUMBENT AND**  
7 **THE AMOUNT OF STRANDED COSTS. CAN YOU COMMENT?**

8  
9 A. Yes. As I indicated in my direct testimony, the *sine qua non* of stranded  
10 costs is the advent of competition. While it is theoretically possible to  
11 achieve competitive market outcomes, in the absence of actual  
12 competitors, the retention of control over monopoly transmission and  
13 distribution stages of supply by PP&L should carry with it a rebuttable  
14 presumption that an absence of financially viable and commercially  
15 significant competitors is an indication that the market has not, in fact,  
16 been fully opened to competition. To the extent that the Commission will  
17 grant compensation to PP&L for its stranded costs, it should precondition  
18 any such payment on the demonstration that the market is, in fact, fully  
19 open to competition.

20 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

21 A. Yes.

22